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North America and Oceania

Outlook and Situation Report

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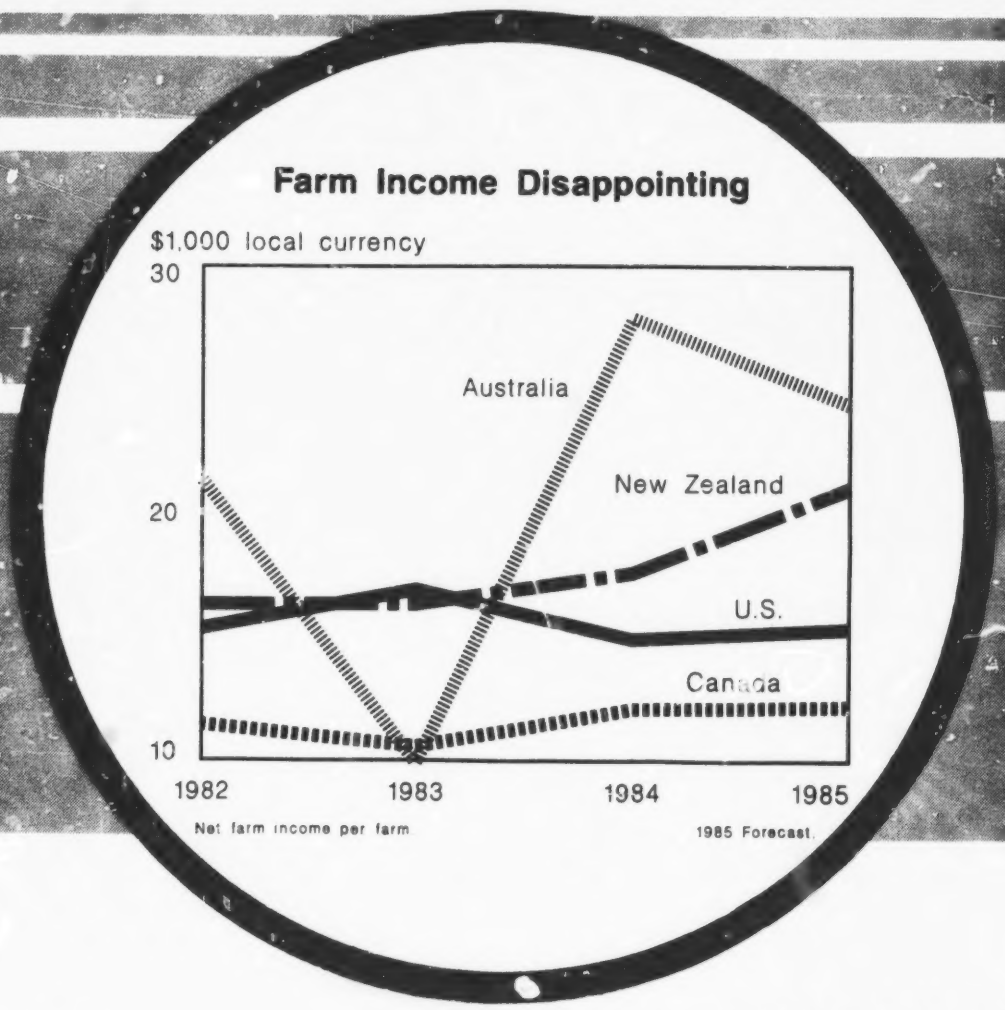

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SUMMARY

The outlook for farmers in North America and Oceania is for another year of large production. Prices will probably remain low and export competition will be stiff. During 1984, farmers in all these countries were caught up in the same developments: expanded world crop production at a time when moderate economic growth held world agricultural prices down. Because of the countries' dependence on foreign markets, lower prices and high interest rates were reflected in farm income and added stress to the farm sector. U.S. farmers fared more poorly than producers in the other three countries.

In 1985, the region's grain output will likely remain large. Australia's estimated crop is its second largest, while Canada may expand its wheat area to rebuild stocks lowered by 1984's poor crop. In the United States, lower prospective plantings for some crops could be partially offset by yield increases. Lower grain prices should increase livestock profits over recent years, but a significant increase in hog numbers may not occur until 1986. Cattle inventories in the United States and Canada continue to decline, and must turn upward before beef production will increase. Meanwhile, Australia's cattle herd is showing its first sign of increase since 1976.

The 1985 agricultural trade outlook is mixed: reductions possible in North America, increases in Oceania. U.S. agricultural trade will decline, with both volume and prices likely below last year. Curbing U.S. shipments are record foreign production of most commodities, continued strength of the U.S. dollar, and slow economic growth in some foreign markets. In Canada, exports are down because of smaller 1984 crops, while in Australia they continue to expand, given large crops and substantial stocks. New Zealand exports may grow as lamb and beef production climbs. The devaluation of the New Zealand dollar could boost dairy product sales, even with large world stocks and exportable supplies.

Farm income for 1985 should be near last year's. U.S. cash receipts may rise slightly, but Government payments are likely to decline. In Canada, Government stabilization payments could offset an expected slide in crop receipts. The gross value of Australian output may decline because of smaller crop returns, while farm costs continue to rise. New Zealand may experience another gain if world meat, wool, and dairy product prices do not deteriorate.

U.S. agricultural and economic policy has a significant impact on prices, production, and trade of countries in North America and Oceania. The appreciation of the U.S. dollar has benefited grain, cattle, and hog producers in competing countries relative to the United States. Effects on producers of other commodities have been mixed. Proposed U.S. farm legislation could result in lower world prices for certain commodities and have direct impacts on farm income and policy in these countries.

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UNITED STATES

Crop production rebounded in 1984 from the drought- and PIK-reduced 1983 crop, putting downward pressure on prices late in the year. Livestock output remained large as farmers responded to drought in some areas, participated in a new farm program to limit milk production, and took steps to reduce hog feeding by selling off some of the breeding herd.

Agricultural exports were rather lackluster, but higher prices early in the marketing year boosted the total value. The general economy made solid advances and added to the demand for agricultural products. However, small gains in domestic use and a stronger economy were not able to offset the impact of abundant crop harvests and a strong dollar. Financial stress became more common in the agricultural sector as highly leveraged farmers were confronted with declining land values, high interest costs, and crop prices edging toward loan rates.

The outlook for agriculture this year includes the likelihood of continued large crop production and only a slight decline in meat production. Export volume as well as the total value will slip. The economy continues to perk along, although some slowing is expected. Thus, farmers will be confronted with many of the same problems as they were last year--increases in demand for agricultural products will not be strong enough to outweigh the impact of continued large crop and livestock production.

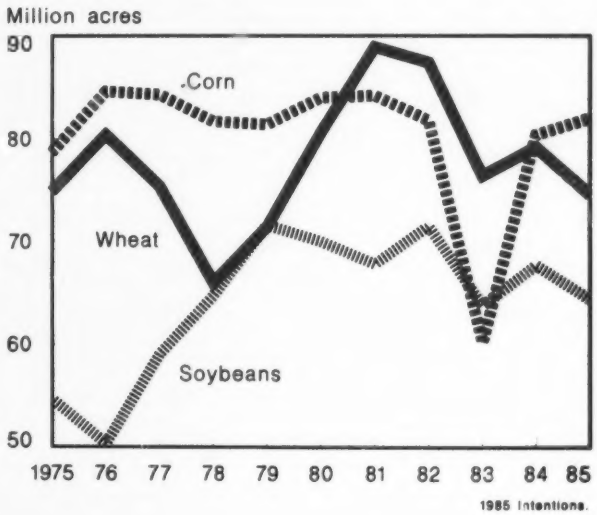
Crop Supplies Abundant

Crop production jumped 26 percent in 1984, but since stocks had been pulled down to maintain use following the very small 1983 crop, supplies available for domestic use and export were up only moderately. However, supplies of most crops are still large enough in relation to expected use to weaken prices. A larger 1984 world crop also adds to the price dampening impact of moderately larger U.S. supplies.

A review of the supply-use balances for grains, soybeans, and cotton show that stocks were worked down quite low during 1983/84, except for wheat, which was not hit by the 1983 drought. Wheat stocks did drop moderately to just over half of expected use last season, and they are likely to be in a similar relationship with use as harvest begins this summer. Corn and cotton stocks dropped from 43 percent and 74 percent of the annual use in 1982/83 to 11 percent and 22 percent in 1983/84, respectively. Soybean stocks, which typically are low, declined from 16 percent of use in 1982/83 to about 10 percent at the beginning of this season. While stocks of major crops carried into next season will increase, they will still likely be much lower than they were 2 years ago. However, the buildup is expected to be large enough to hold prices near the loan level.

Farmers are preparing fields and planting 1985 crops based on the price relationships they have recently experienced in the market and on Government programs similar to last year's, except that there will not be a Payment-in-Kind program for wheat this season. In February, farmers were asked about their 1985 seeding intentions. They said that overall they plan to seed nearly as many acres this year as last. Wheat and soybean acreage will be off about 5 percent, but corn plantings will likely increase about 2 percent. Cotton acreage may not change much. There appears to be a shift to planting sorghum in place of soybeans in the Southeast and to following wheat with sorghum (rather than soybeans) in many double-cropping areas. Also, the recent survey indicates renewed interest in growing cotton in the Southeast. Thus, farmers have said that they intend to

U.S.: Acres Planted



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maintain plantings nearly at the 1984 level, even though crop prices are lower and some farmers are experiencing difficulty in obtaining production loans from lenders. With typical summer weather, the 1985 harvest will again be large.

Meat Production To Stay Large

Lower crop prices, large U.S. and world crop production, and weak grain exports are improving the outlook for livestock and poultry producers. Reduced feed costs, smaller red meat production, and increases in consumer incomes will help to boost livestock returns this year, although meat producers are still confronted with uncertainty about the future.

All farmers have experienced the impact of U.S. agriculture becoming more deeply involved in world markets. Wide swings in crop production in other countries, varying growth rates of the world economy, and foreign policy decisions have all left their mark. Volatility in domestic crop prices affects the financial situation of crop farmers directly, as cash receipts rise and fall with price trends.

The impact on livestock and poultry producers is through feed costs. Following the 1983 summer drought, feed costs rose sharply. Many livestock and poultry producers had to adjust the size of their operations as returns were cut. The situation has turned around since it became apparent last summer that depleted stocks of feedstuffs would be substantially rebuilt with the larger 1984 harvests. Many feeders are beginning to see profits again.

Reduced feed costs, a moderate increase in livestock prices since fall, and a more robust general economy than anticipated earlier are encouraging livestock producers to expand production. Cattle and hog feeders, however, are showing considerable restraint. Cattle feeders put only 4 percent more animals on feed last fall, and hog producers are still carrying out plans to reduce the size of their operations. Broiler producers, however, are stepping up first-half production 5 to 8 percent.

The hesitancy to sharply increase meat production demonstrates concern about the price outlook. The continued large shipments of Canadian hogs and pork into the United States because of the large supply available and the strength of the U.S. dollar also add question marks about the strength of prices later in the year.

Another factor that clouds the livestock price outlook is the reaction of farmers to the low cash flow situation this spring, as they raise money for spring operating costs. There are no data that accurately show how many cows or hogs were shipped to market during 1984 by farmers using these liquid assets to bolster their cash flow situation. However, this was common in some areas of the country last year and helps explain why cow slaughter remained so high and 1984 beef production was so large. Certainly, implementation of the new dairy program last spring and forage problems because of drought in some regions are the primary explanation of stepped up cow slaughter. But financial stress also added to the sell-off. Additional sales of both cows and hogs are likely this spring as farmers who are having difficulty finding funds for spring planting look to animal assets to provide part of the funds necessary to get crops in the ground.

Beef production is expected to be down about 3 percent this year, with small increases in fed cattle marketings being more than offset by a sharp decline in cow and other nonfed slaughter. The cattle herd has been declining in recent years, and the stage is set for an expansion as forage conditions and prices improve. However, large marketings of cows for any reason would boost nearby beef production, but would eventually lead to a sharper cut in beef production once producers began to increase herds. Sales of bred sows or gilts intended for the breeding herd would also add to meat supplies this spring, pushing the expected turnaround in pork production further into the future.

Production plans already announced by livestock and poultry producers and the continued rises in the general economy will likely lead to moderately higher livestock prices this year. Beef production may be off about 3 percent, pork could be down 4 to 6 percent, while broiler production may increase 6 to 8 percent. On balance, total meat production likely will be down less than 1

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percent and remain high by historical standards.

Export Prospects Only Fair

The value of U.S. agricultural exports during fiscal 1985 is forecast to decline to $34.5 billion, down from $38 billion last year and the record $44 billion in 1980/81. The decline in value primarily will reflect lower prices, as the volume is expected to be off only slightly from last year's 143.6 million metric tons. U.S. agricultural products are meeting stiff competition in world markets because crop supplies are abundant worldwide at a time when world economic growth is slowing and the U.S. dollar is strong.

The volume of wheat and rice exported will trail year-earlier levels, but coarse grain shipments will be moderately larger in 1985. Soybean exports may rise on a fiscal year basis. Cotton and animal fats are falling.

U.S. agricultural imports are expected to reach $19.5 billion in fiscal 1985, up from $18.9 billion last year. The big gainers include meat and meat products, fruits, nuts and vegetables, and wines and malt beverages. The agricultural trade balance will fall about $4 billion to $15 billion in 1985.

Farm Income Weakens

Net farm income jumped in 1984 to $29 to $33 billion. Cash receipts were up only a little, and direct Government payments were off somewhat. However, when the value of the inventory change and only moderate growth in production expenses are considered, net farm income rose about $14 billion. Net cash income declined, indicating continued cash flow problems for many farmers.

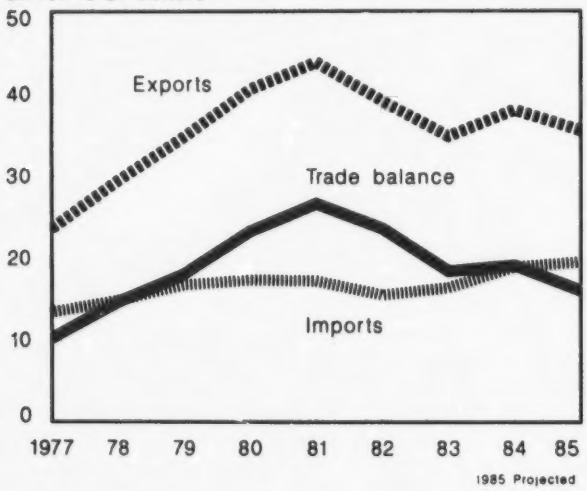
This year, net farm income will likely run $20 to $25 billion. Cash receipts from crops and livestock may be up a little, but a small increase in farm production expenses and little change in the value of the inventory change will lead to a decline in net farm income. The cash flow situation for most farmers will be about the same as it was last year.

Economic Recovery Slows

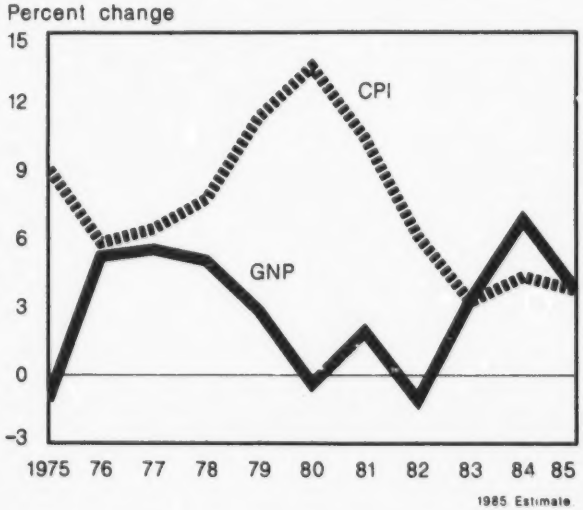
The Gross National Product (GNP) registered a 6.9-percent increase in 1984, the highest since 1951. Growth was led by a 20-percent increase in business fixed investment. Net exports turned sour, but this tended to restrain inflation. The Consumer Price Index (CPI) increased a moderate 4.2 percent. Lower interest rates last fall helped pull GNP growth back up to nearly 5 percent in the fourth quarter, more than double the summer rate.

The 1985 outlook is for GNP growth to run 3 to 4 percent, but increases will slow in the second half. Relatively low interest rates in the first half and strong investment will spur continued gains in the recovery.

U.S. Agricultural Trade



U.S.: Gross National Product and Consumer Price Index



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Unemployment rates likely will edge lower from the 7.5-percent average of 1984. Strong growth in the general economy this year will help boost consumer demand for agricultural products, particularly meats. Disposable personal income will likely increase more than 3 percent, following a nearly 6-percent rise last year (allowing for the general rise in inflation). However, the big Federal budget deficit will require large net inflows of foreign capital. This points to continued high real interest rates to attract the needed capital and a strong dollar that will dampen overseas demand for U.S. farm products. *[Donald Seaborg (202) 447-8376]*

CANADA

In 1984, Canadian agriculture was marked by the worst drought in many years, bringing total farm production down for the second year in a row. Nevertheless, farm prices for crops and livestock improved, boosting net farm income 14 percent. Agricultural exports will fall sharply in 1984/85 from the 1983/84 record because of the drop in supplies. Low ending stocks will prompt an increase in grain area in 1985, and production should rebound if good weather prevails. Beef production will continue its decline, but pork production and exports will remain high. Poultry production will continue to expand sharply.

Buoyant Economy To Slow in 1985

Canada's 1984 economic performance was the best since the mid-1970's. Real GNP grew about 4.5 percent. Inflation increased at the slowest rate since 1971, although food prices and interest rates were higher than in 1983. Canada benefited greatly from the strong U.S. economy; much of Canada's growth came from expanded automotive exports to the United States. Canada's overall balance of goods trade showed another healthy surplus.

Not all sectors have shared equally in the growth, however. Resource-based industries, including agriculture, have suffered from slack world demand and low prices. As a result, unemployment remained stubbornly high and the Canadian dollar continued to weaken against the U.S. dollar. The Canadian per capita budget deficit remains larger than the United States', and the debt-servicing costs are among the highest in the developed countries.

The outlook for 1985 is less promising. GNP growth is forecast to slow. Inflation should remain moderate, given slower growth and slightly higher unemployment. The Canadian dollar fell to unprecedented lows in early 1985, which will help keep the trade balance in surplus, but will also maintain pressure on the monetary authorities to raise interest rates. Consumer demand is not expected to grow substantially, as savings rates will remain very high.

Crop Production To Rebound in 1985

Crop production in western Canada was hit by the worst drought in years in 1984. Wheat was the most seriously affected crop, especially durum, as the drought was most severe in southern areas (appendix table 2). Average yields for all wheat fell 17 percent. However, crop quality was excellent; 67 percent of the crop graded No. 1, compared with 51 percent last year.

Despite an increase in area, barley production was essentially unchanged, as the

Canada: Key Economic Indicators

Indicator	Unit	1981	1982	1983	Est. 1984	Forecast range 1985
Real GNP growth	(%)	3.4	4.4	3.3	4.7	2.3-3.6
Change in CPI	(%)	12.5	10.8	5.8	4.4	3.0-5.8
Change in food CPI	(%)	11.2	7.2	3.7	5.5	3.0-5.0
Unemployment rate	(%)	7.5	11.0	11.9	11.3	10.5-11.5
Prime interest rate	(%)	19.3	15.3	11.2	11.25	9.75-13.5
Trade balance	(Mil. Can$)	6.6	15.4	15.2	20.8	19.5-25.0
Exchange rate	(Can$/$US)	1.20	1.23	1.23	1.30	1.33-1.47

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drought took its toll. However, total coarse grain production increased 5 percent, due to a record corn crop in eastern Canada. Feed supplies will be very tight in western Canada until harvest, but more plentiful in the east, which will greatly affect livestock production in the two regions.

Total oilseed production grew a fourth in 1984. Western oilseeds, produced in the more northern areas, escaped the worst of the drought. The rapeseed crop was the largest in 5 years and should allow replenishment of very low stocks. Record area and good weather produced the largest soybean crop ever in Ontario and Quebec.

Production of fruits and vegetables was mixed in 1984. Apple production dropped 7 percent, and exports will likely decline in 1985. Vegetable production was generally higher in 1984; potato output was up about 6 percent. Exports of seed and table potatoes in 1984/85 (July-June) are running slightly ahead of last year's pace, but exports to the United States are up 70 percent.

Very low carryout stocks and improved prices will set the stage for increased grain area in 1985. Wheat area could expand to the record achieved in 1983. Summer fallow will continue its declining trend, and area seeded to winter wheat in the prairies has more than doubled. Barley seeding may increase by a tenth, especially if prices remain favorable relative to rapeseed. Thus, rapeseed area could stabilize after 3 years of rapid expansion, despite a big push by the oilseed industry to enlarge area. Corn and soybean plantings are not expected to grow from the 1984 records. Moisture conditions over the fall and winter are much improved from last year. With expanded acreage, average yields will result in large production increases in 1985.

Agricultural Exports Fall From Record High

Canadian grain and oilseed exports surpassed 30 million tons in 1983/84 (August-July), but will fall far short of that mark in 1984/85. Wheat exports were up about 2 percent, as smaller shipments to the USSR and China were offset by large sales to India and Egypt. Coarse grain exports grew 5 percent; increases in rye offset declines in barley. Exports of rapeseed and flaxseed grew 18 and 39 percent, respectively, reflecting reduced crops in Western Europe. About 70 percent of wheat and 50 percent of barley were exported under long-term agreements.

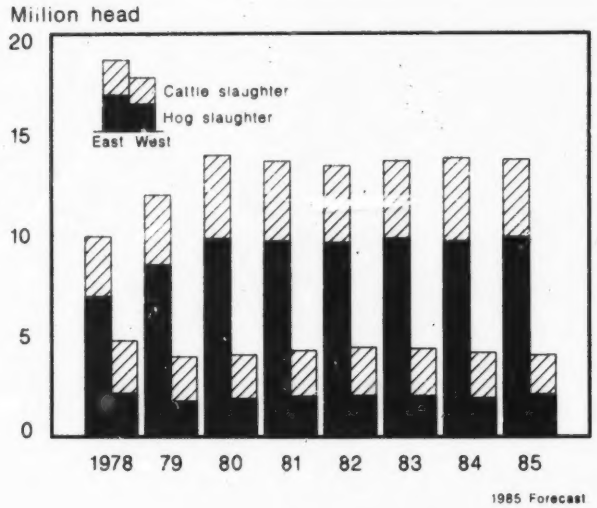
Low grain supplies will sharply reduce 1984/85 exports. Wheat exports are forecast to drop more than 20 percent and barley by almost half. As it was last year, competition between the domestic feed industry and the Wheat Board for the limited barley supplies has been strong. Grain exports in the first half of the year were 87 percent of the same period last year, but the pace is expected to slow further in the second half as supplies dwindle. Of the major crops, only rapeseed exports are maintaining last year's pace. Unlike past years, the performance of the transportation system should not be an important issue, since volumes are reduced.

Canada's agricultural trade balance for 1984 is estimated at about Can$4.5 billion, with exports of Can$10.3 billion and imports of Can$5.8 billion. The surplus is expected to fall in 1985. Even if production rebounds this summer, lower shipments in the first half of the year will keep exports below 1984.

Cattle Sector Still Depressed

Canadian cattle inventories registered a 3.6-percent decline on January 1, 1985, marking the fourth year inventories have fallen (appendix table 5). Cattle numbers are

Canadian Livestock Slaughter by Region



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at their lowest level in over 20 years. Both slaughter and production dropped in 1984, and that pattern is expected to continue in 1985. Given the very low cattle numbers and the possibility of herd rebuilding starting in 1985, beef and veal production will probably not increase until 1988.

Reduced slaughter in 1984 boosted fed cattle prices, but slaughter cow prices were tempered by large imports of manufacturing beef. For the first half of 1985, cattle prices will be higher in eastern than in western Canada because of the larger supplies and lower prices of feed grains in the east. Despite the announcement of a drought assistance program to help western livestock producers maintain their herds, some distress slaughtering has occurred.

Both beef imports and exports rose significantly in 1984. Subsidized beef shipments from the European Community (EC) almost tripled, prompting the cattle industry to ask for countervailing duties to offset the subsidy. U.S. beef exports to Canada, mostly high-quality boxed beef, nearly doubled, partly reflecting labor problems in Canada's meatpacking industry. Canadian beef exports to the United States also increased, because domestic supplies of manufacturing beef were displaced by the low-priced EC imports. Canada has invoked its Meat Import Act for 1985 to stem the flow of EC beef. The United States has been assigned a quota of 9,800 metric tons, which would considerably reduce exports from 1984. However, the quota is likely to be adjusted during the year to take into account the U.S.'s position as a traditional supplier of high-quality beef.

Pork Production and Exports Booming

In 1984, the Canadian hog sector saw continued high production and a dramatic increase in live hog exports to the United States. As with beef, pork production has been affected by the difference in feed prices between eastern and western Canada. Tight feed supplies in the east in the second half of 1983 resulted in a drop in hog numbers, while low barley prices stimulated hog production in the west. This year, the situation is just reversed. Despite the different profitability conditions in the regions, total pork production has stayed high. Slaughter and production are expected to decline only 1 percent in 1985.

The large Canadian supplies, along with a weak Canadian dollar and labor strikes in the Canadian meatpacking industry, resulted in a near tripling of live hog exports to the United States in 1984. Exports of pork and live hogs now equal about a quarter of Canadian production. Live hog exports could increase in 1985 to around 1.5 million. In the first 2 months, live hog exports exceeded last year's high by almost 75 percent.

A countervailing duty case against Canadian pork and live hogs is currently underway in the United States, which could result in additional duties on these products. The complaints center around a variety of Federal and provincial price stabilization programs that U.S. producers claim subsidize Canadian hog producers.

Early this year, the new Government introduced a bill to create a national stabilization program for red meat producers to replace the current Federal and provincial programs for hogs and cattle. The new program would be equally funded by the Federal Government, provincial governments, and participating producers. The new program could actually reduce the amount of support going to the hog sector, but the impact would vary by province because provincial programs differ.

Demand for Poultry Growing, But Milk Production Stable

After several years of stable output, poultry production shot up in 1984 on the strength of increases in broiler production. Demand for chicken in fast food outlets and further processed chicken products has been unexpectedly strong. While per capita consumption of red meat has declined the past several years, poultry consumption continues to rise. Production, which is regulated by quotas, has not kept pace with demand, and U.S. poultry exports to Canada rose sharply in 1984. Production and consumption are expected to increase in 1985, but at a slower pace, and U.S. exports will likely fall.

Egg production fell in 1984 as the egg marketing agency reduced the quota to help relieve the surplus problems that developed in 1983. Production quotas have been increased slightly for 1985.

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Production and consumption of milk and dairy products continues to show little change. In 1984, about 2 percent fewer cows produced about 1 percent more milk. This pattern of fewer cows and stable production will continue in 1985 because the Canadian Dairy Commission (CDC) is not likely to significantly raise the milk production quota. Butter stocks remain burdensome, but it is becoming increasingly expensive for the CDC to dispose of surpluses on the world market because of the large subsidies needed to make up the difference between Canadian and world prices.

Farm Income Improved in 1984

Buoyed by Government payments, farm income improved in 1984, despite the serious drought. Farm cash receipts rose an estimated 7 percent, while expenses grew only 5 percent. Net farm income thus improved to Can$3.8 billion. Income was boosted by a high rate of grain deliveries between August and December, large crop insurance payments, and a Can$223 million payment from the Western Grain Stabilization Program (WGSP), Canada's main support program for western grain and oilseed producers. After 2 years of decline, net income per farm increased to about Can$12,100.

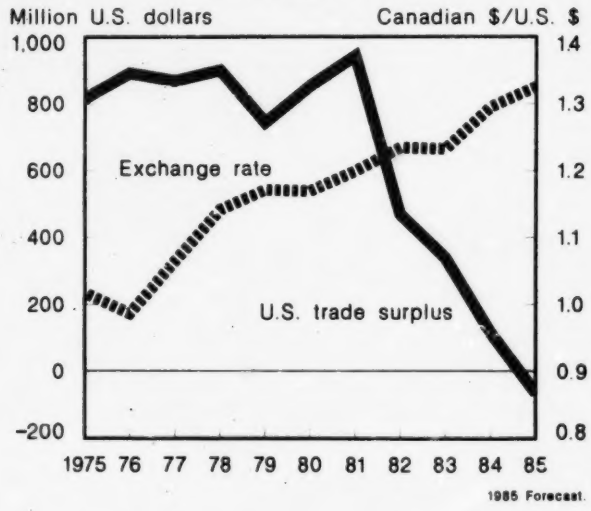
The Wheat Board distributed final payments for the 1983/84 marketing year in early 1985 (appendix table 7). Total payments for wheat, barley, and oats improved from last year, but handling and transportation charges are deducted from the total payment, so actual returns may decline because of higher freight rates for grains and oilseeds.

Net farm income is forecast to remain about the same in 1985, assuming a large payment from the WGSP, because cash receipts from crops will likely drop. An estimated one-quarter of farmers are experiencing some degree of financial stress following several years of low prices, declining asset values, and high interest rates.

U.S. May Become Net Importer From Canada

U.S.-Canadian agricultural trade continues to be marked by slow growth in U.S. exports to Canada, but a steady expansion in U.S. imports from Canada. The value of U.S.

U.S.-Canadian Agricultural Trade Balance and Exchange Rate



agricultural exports rose 6.5 percent in 1984, but U.S. imports shot up by a dramatic 23 percent. The U.S. surplus was only $116 million, compared with $850 million just 5 years ago. This narrowing U.S. surplus coincides with the sharp increase in the value of the U.S. dollar. If present trends continue, the United States could become a net agricultural importer from Canada in 1985.

This fundamental alteration of the U.S.-Canadian trade balance has been accompanied by various trade policy actions on both sides of the border. In 1983 and 1984, Canadians lodged trade protests against U.S. potato and sugar exports. On the U.S. side, unfair trade complaints have been registered against Canadian potatoes, pork and live hogs, and red raspberries. The United States has also put restrictions on imports of sugar blends, many of which originate in Canada, to prevent circumvention of U.S. raw sugar import quotas. The U.S. oilseed processing and flour milling industry, too, has voiced strong concern about increases in Canadian exports of millfeeds and rapeseed meal into the Northwest. The industries claim these products are being subsidized by changes in Canada's freight rate system that reduced rates on these products moving into the region.

Given the likelihood that the U.S. dollar will remain strong, many Canadian farm products will maintain a price advantage over similar U.S. products. This situation may stimulate further product flow as well as

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additional protests from U.S. producers. *[Carol Goodloe (202) 447-8378]*

AUSTRALIA

Agricultural production declined in 1984 from 1983's record outturn because of a smaller wheat crop and a continuing drop in beef production. Weather was generally favorable except for widespread dry conditions last May through early July, which delayed grain plantings.

Winter grain production fell 12 percent from last year's record but is the second largest ever. Area planted to summer crops rose 40 percent because of favorable returns to oilseeds and cotton and poor sowing conditions for winter grains. Beef production declined 12 percent in 1984, and cattle numbers rose slightly. Sheepmeat production remained depressed because of low mutton prices and rising wool prices.

In 1984/85 (June-July), the gross value of agricultural production is expected to total near 1983/84's A$15.2 billion. The reduced value of grain and milk output will be about offset by gains for wool, cattle, and cotton. However, input costs are continuing their rapid ascent. The Bureau of Agricultural Economics' index of prices paid by farmers is estimated up 6 percent. New machinery and wages will be major components in the cost rise. Farmers' long-term borrowings will likely decline, but loans to fill short-run needs may increase. With recovery from drought, net income per farm rebounded in 1983/84, but may decline more than a tenth this year.

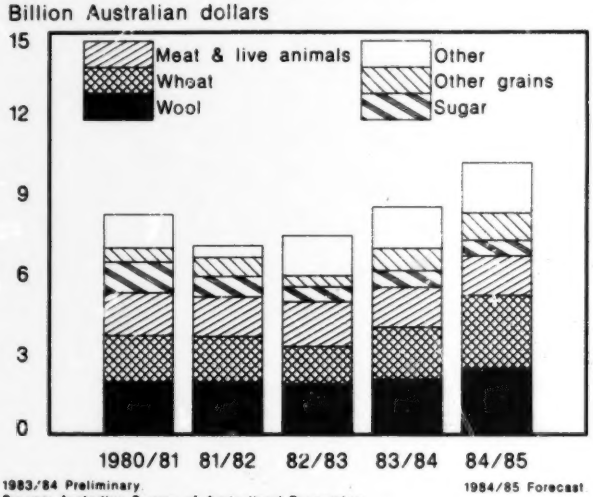
The financial position of Australian farmers varies substantially across industries. Wheat producers benefited greatly from last year's record crop and are harvesting another bountiful crop this season. Because of the weakening Australian dollar, wheat prices received by farmers may increase marginally in 1984/85. Livestock producers' incomes are rising because of improving prices for beef and wool. With good weather this year and last, cotton is a highly profitable crop in Australia. However, dairy producers are being squeezed by falling prices and rising costs, and rice and sugar farmers are losing money because of depressed world prices. Many horticulturalists are also struggling.

Value of Australian agricultural production and price and cost indexes

Item	1982/83	1983/84	1984/85F
		$A million	
Gross value of agr. prod.	11,620	15,150	15,057
Livestock	6,624	6,887	7,331
Crops	4,966	8,263	7,726
Farm costs	9,902	10,321	10,850
Net value of agr. prod.	1,718	4,829	4,207
		1980/81 = 100	
Index of prices received	105	111	113
Livestock	106	115	122
Crops	102	106	101
Index of prices paid	123	133	141

F = Forecast.
Source: Australian Bureau of Agricultural Economics

Australia's Agricultural Exports



Australian agricultural exports are expected to rise a fifth in value in 1984/85, to a record A$10 billion. Grain exports may increase A$1 billion and 35 percent in volume. Wool and cotton exports are also up this year.

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Australian Economy Gave Good Performance in 1984

Real Gross Domestic Product (GDP) rose 6 percent in 1984, led by expanded public sector expenditures, stockbuilding in the farm and nonfarm sectors, and increased exports. Employment rose 3 percent, and the unemployment rate fell significantly. Inflation slowed to 6 percent, from the 10- to 11-percent rates recorded during the previous 4 years.

Economic growth in 1985 will depend on private investment and moderation in wage negotiations. GDP may increase 2.5 to 3 percent.

Winter Grains Benefit from Good Harvesting Weather

Dry weather in May, June, and early July delayed wheat and barley plantings across the eastern grain belt sufficiently to restrict yield potential. Many farmers shifted area to summer crops. Favorable late winter and spring rains permitted good growth, and excellent harvesting weather contributed to above-average yields (appendix tables 3 and 4).

Wheat yields were 1.5 tons per hectare, compared with a 1974-1983 average of 1.3. In Western Australia, both yield and production set records. Production was down in the other States, but the 18.5-million-ton national harvest is the second largest ever. In contrast to last year's crop, which was severely weather-damaged, this crop is of excellent quality. A record 97 percent of receivals are of Australian Standard White (ASW) or better quality.

The Australian Wheat Board was successful in selling the weather-damaged wheat to traditional and new markets. However, total wheat exports in the 1983/84 marketing year were a disappointing 14 million tons. Labor disputes slowed exports last winter and spring, and inefficiencies in the New South Wales (NSW) Grain Handling Authority are charged with losing firm sales.

Over 7 million tons of wheat were carried into 1984/85. Exports will again be constrained by handling capacity. Rail strikes in NSW have already slowed shipments. Marketing year exports are currently expected to total about 15 million tons, and carryover stocks may remain above 7 million.

A new 5-year Wheat Marketing Act takes effect with the 1984/85 crop. The Guaranteed Minimum Price (GMP) calculation was altered to reflect price declines on the world market more rapidly. The AWB's monopoly authority over domestic sales was loosened slightly. Under a permit system, farmers may sell wheat for livestock feed directly to users.

The GMP is the initial price paid for wheat delivered to the Wheat Board (appendix table 7). It is underwritten by the Australian Government, providing stability to farmers and reducing the AWB's borrowing costs. Farmers receive the GMP less deductions for storage and transport costs and levies for research (and formerly a finance fund, which has been eliminated). Thus, the Government underwrites charges of Bulk Handing Authorities and administrative and finance costs of the AWB, as well as farmers' returns. Under the earlier act, the GMP was set at 95 percent of the average of net returns to the Board during the previous 2 years and estimated returns for the current year's crop. The GMP could not decline more than 15 percent in any year. Under the new act, the GMP is 95 percent of the average of estimated net returns for the current year and net returns in the lowest 2 of the previous 3 years. No limit is placed on a potential year-to-year drop.

Two other changes were made in the GMP. Ninety percent of the preliminary GMP is be made at delivery. The remainder is paid following harvest, when the AWB has re-estimated its costs and the export price (based on protein content and other quality characteristics of wheat receivals) and recalculated the GMP. If final pool returns exceed the GMP, growers receive additional payments as the wheat is sold and credit payments of foreign buyers are received. If pool returns are below the GMP, the Australian Government makes up the difference.

The other change in the Wheat Act is that premium payments for high-quality wheat will be underwritten. The single GMP has been replaced by a series of five minimum prices. Under the single GMP system, producers of hard wheats subsidized other producers. For

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the 1984/85 crop, the GMP for ASW wheat is A$145.35 a ton, 3 percent below last year's GMP.

Australia harvested a record barley crop from record area in 1984/85. All the increase occurred in Western Australia and Queensland; output was unchanged in South Australia, the largest producing State. Domestic use will rise slightly, and exports are expected to remain above 4 million tons.

Area planted to sorghum expanded 12 percent in 1984/85, largely because of difficulties in planting winter grains. Shortages of sunflowerseed for planting also diverted some land to sorghum. Yields will depend on summer weather, but are unlikely to match last year's 2.5 tons a hectare. With average yields, output will decline about 16 percent to 1.6 million tons.

Rice area is estimated up 5 percent this year, despite depressed prices. With improved water supplies, farmers are attempting to raise cash flow through larger plantings and greater use of high-yielding varieties. Thus, yields may be slightly above average, despite cool early-season weather.

Oilseed area increased 57 percent, and production is expected to rise 50 percent above last year's record output. Sunflowerseed area doubled and would have expanded further had sufficient seeds been available. Farmers are responding to favorable returns to oilseeds and cotton and disappointing returns to grains.

Lupins area increased 77 percent, and production is estimated up 68 percent. Most of the lupins harvested are exported to Asia and Western Europe. This year's massive crop has depressed prices, and the rate of expansion in area will slow in 1985. However, lupins will remain an important crop, especially in Western Australia, because they fix nitrogen in the soil and the beans left after harvest are valuable feed for sheep.

Beef Production Falls Further As Decline in Cattle Herd Ends

Excellent pasture conditions and expectations of improved prices encouraged beef cattle producers to begin to rebuild herds for the first time since 1976. Thus, cattle numbers on March 31, 1985, are estimated at 22.5 million, 700,000 above a year earlier. Only 6.6 million head were slaughtered last year, 18 percent below 1983's reduced level. Average slaughter weights rose 7 percent to the highest level in 30 years, and beef and veal production declined only 12 percent (appendix tables 5 and 6).

Beef and veal exports fell to 585,000 tons (carcass weight) in 1984. Exports to the United States were down 14 percent, but the share of Australia's exports shipped to this country rose from 53 to 59 percent. Shipments declined to all major markets except Japan. Domestic consumption, already low by historical standards, fell only slightly.

With slaughter at such a low volume, saleyard cattle prices in Australia rose 12 percent to A$168/ton in 1984, despite declining U.S. import prices. Prices are expected to continue to improve in 1985, along with U.S. beef prices. The U.S.-Australian dollar exchange rate will have a strong influence on returns to Australian beef.

At its current reduced size, the Australian beef cattle industry is likely to remain more profitable than wheat and sheep raising for several years. Thus, with normal weather in 1985, cattle slaughter will be low as producers build their herds. Numbers may be up another 3 percent by March 1986.

Cattle slaughter is forecast at around 6.9 million head in 1985. Slaughter weights should be above average because of 1984's excellent feed supplies, but will not match last year's

Australian cattle numbers

Year	Queens-land	New South Wales	Vic-toria	West. Aust.	Other States & terr.	Total
			Millions			
1976	11.3	9.1	5.9	2.7	4.4	33.4
1977	11.5	8.3	5.1	2.5	4.1	31.5
1978	11.5	7.3	4.6	2.3	3.6	29.3
1979	10.9	6.5	4.1	2.1	3.5	27.1
1980	10.3	6.1	4.3	2.1	3.4	26.2
1981	9.9	5.5	4.3	2.0	3.5	25.2
1982	9.8	5.4	4.1	1.9	3.4	24.6
1983	9.3	5.0	3.4	1.8	3.0	22.5
1984	8.8	5.1	3.5	1.7	2.8	21.8

Source: Australian Bureau of Statistics.

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level. Beef and veal production may increase about 3 percent. Domestic use will continue to slip if beef prices rise relative to other meats, as is anticipated. Exports may recover somewhat. Prospects are favorable for expanded shipments to the high-priced U.S. and Japanese markets.

Sheepmeat Faces
Weak Domestic and Foreign Demand

Excellent pasture conditions, a favorable outlook for wool, and the depressed mutton market caused sheep producers to continue to rebuild herds substantially last year. March 31, 1985, sheep numbers are estimated at 144 million, 8 percent above the herd of 2 years earlier.

Adult sheep slaughter fell to 8.7 million head, which compares with an average of 13 million over the previous 5 years. Because of high slaughter weights, mutton production declined only marginally from 1983. Exports dropped 32 percent, with exports to Japan down 30 percent and no mutton shipped to Iran in 1984. Domestic consumption rose because of the low prices.

Lamb slaughter decreased slightly, although 4.5 million more lambs were marked in 1984 than in 1983. Production was down 2 percent, and both domestic use and exports declined. Shipments to the Middle East were down, but the Japanese market continued to expand.

Little growth in the sheep herd is expected this year. With normal weather, lambings should be down from 1984's excellent performance. Depressed sheepmeat prices relative to crops and beef will restrain herd expansion. However, favorable wool prices could encourage producers to retain ewes, and adult sheep slaughter may be less than is currently projected if the demand for mutton does not improve.

Sheepmeat production in 1985 is forecast to increase 15 percent from the low level of the past 2 years. Lamb prices should remain near 1984 levels, but mutton prices are likely to decline further. Domestic as well as foreign demand will remain weak, but domestic lamb consumption should recover somewhat if prices for other meats increase.

Live sheep exports declined 7 percent in 1984. The expansion in the Middle East market has been slowed by cheap supplies of poultry meat and beef from Europe and South America. As competition for the Middle Eastern meat import market is likely to remain intense in 1985, recovery in live sheep sales will be slow.

Wool production rose 4 percent in 1983/84 and is expected to increase an additional 6 percent in 1984/85 (July-June). The Australian Wool Corporation (AWC) has been active in the market. AWC stocks were 1.2 million bales at the end of the 1983/84 season and reached 1.6 million in November 1984; stocks are expected to decline during the second half of the marketing year, as is usual. Exports are expected to increase 7-8 percent this year.

The AWC reserve (minimum) price was maintained at 470 cents per kg in 1984/85. The market indicator auction price rose 9 percent in 1983/84 and is forecast up 5 percent this year.

Dairy Industry Hit by
Low World Prices

The Australian dairy herd has stabilized at about 1.8 million head. Farmers continue to leave dairying, and the remaining farmers face economic pressures to expand their herds and improve productivity to maintain cash income. Yield per cow rose 7 percent in 1983/84 and is expected to remain high this year. Output should remain near 6.1 million tons.

Milk and dairy products sold within Australia are protected by price supports, but a large share of output must be sold on foreign markets. Returns to fluid milk sales--about 1.6 million tons--will increase 5 percent in 1984/85 to 31 cents per liter, but returns to manufacturing milk will decline about 17 percent to 13 cents. *[Sally Byrne (202)-447-8376]*

NEW ZEALAND

New Zealand's economic policies were changed radically in 1984. The new Labor Government has moved to phase out subsidies

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and protectionist trade barriers so that resources will be used more efficiently, allowing improved performance by the economy.

In June, the National Party announced that the Supplementary Minimum Price (SMP) scheme would be terminated with the 1983/84 marketing year and that in 1984/85 payments would be made to the marketing boards equivalent to what SMP payments would have been. The SMP system had been instituted in 1978 to encourage investment in sheep, beef, and dairy enterprises and to compensate for the higher costs imposed on agriculture by New Zealand's protectionist trade policies. The program failed because prices were too low to encourage investment and market signals were distorted.

The Labor Government was elected in July and promptly devalued the New Zealand dollar by 20 percent. Beef and dairy product prices had already been above support levels, and the devaluation raised wool prices above the level at which support payments would have been made. Sheepmeat prices remained so low that Government subsidies will continue in 1984/85, but at a much lower level than would have been required. Thus, the devaluation was the first step in reducing Government support to agriculture.

This action was accompanied by a program to phase out--over several years--import licensing and export incentives, which have protected domestic manufacturing. Other initiatives include deregulation of financial markets, retirement of public debt, and increases in certain taxes and user charges. These actions should improve the efficiency of resource allocation in the economy, but the devaluation, higher interest rates, and increased taxes are inflationary. Many farmers' incomes will be substantially reduced; recent borrowers may be hit hardest.

Economic Growth To Slow in 1985/86

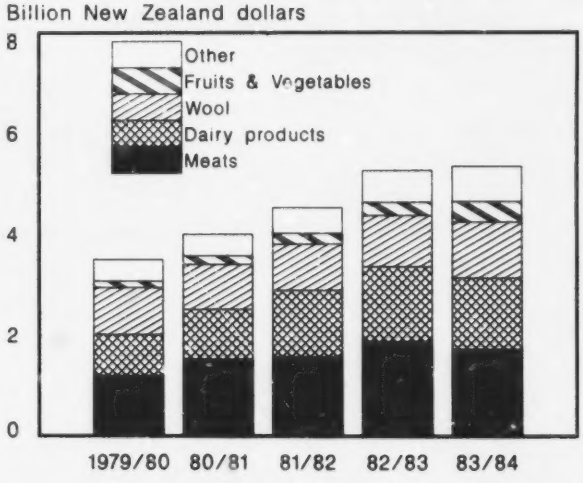
Real GDP expanded 4 to 5 percent in 1984/85 (April-March), with strong growth in both the agricultural and manufacturing sectors. Unemployment dropped from 7.7 to about 7.1 percent. Wages rose about 5.5 percent. Inflation had been restrained by the wage and price freeze that expired in February 1984. A temporary freeze (to November 9) was imposed after the devaluation. Nevertheless, 1984/85's inflation rate is estimated at 13 to 14 percent because of sharp price gains in the last 4 months of the year. The devaluation raised import costs, despite Government efforts to limit price increases by relaxing import restrictions. In addition, new taxes and levies, and subsidy reductions are adding about 2 percent to consumer prices.

Analysts are forecasting a real growth rate in GDP of 0.5 to 1 percent for 1985/86. Unemployment may rise slightly as the labor force grows more rapidly than the number of job openings. Inflation will likely continue at about 13 percent, even with moderation in wage demands.

Good Weather Boosts Agricultural Output

Exceptionally fine weather promoted livestock production in 1983/84. Good pasture growth promoted weight gain, record milk production, and excellent lambing percentages in 1984. Investment in extensive agricultural enterprises declined again in 1983/84. Farmers are diversifying into field crops, horticulture, deer, and goats. Net income per farm increased slightly last year and could expand a fifth in 1984/85. However, the real net income of sheep and beef cattle farmers declined 13 percent in 1983/84 because of

New Zealand's Agricultural Exports



Source: New Zealand Department of Statistics. 1983/84 Preliminary

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reduced sales volumes of beef and wool and slightly lower prices for sheepmeat and wool. Real net incomes for dairy farmers increased 25 percent because of record milk production and larger receipts from calf sales.

Agricultural exports increased 2 percent in value in 1983/84. Dairy product exports were down 5 percent because of lower prices and a reduced volume of butter exports. Sheepmeat exports continued large, but beef exports dropped sharply. Wool export volume declined, but higher prices pushed the total value up. Fruit and vegetable exports rose substantially. Total agricultural exports should expand more rapidly this year.

Cattle Herd Expands

Good pasture conditions and plentiful feed supplies are encouraging expansion in dairying. Five percent more cows were added in 1983 and 2 percent in 1984. Excellent weather raised 1983/84 milk production to a record 7.6 million tons with 323 million kilograms of milkfat. Production remains very high this year.

Last year's record output posed a marketing challenge to the New Zealand Dairy Board because of stiff competition for export markets. Production of butter and skim milk powder rose because of weak demand for casein and cheese. However, butter exports declined, and stocks ballooned.

Following several years of retrenchment, New Zealand cattle numbers rose 4 percent in 1983/84. Another slight gain is expected this year because returns to beef are improving relative to slaughter lamb production. Cattle slaughter in 1983/84 dropped to the smallest level since 1966/67, and beef and veal production fell 13 percent from a year earlier. Exports dropped 23 percent, and shipments declined to all major markets. Production and exports are expected to increase slightly this year and next (appendix tables 5 and 6).

The June 30 sheep inventory has remained at 70.3 million head since 1982. Weather problems in 1982/83 reduced spring 1983 lambings, and both lamb and adult sheep slaughter dropped. Lambing percentages were much improved in 1984/85, allowing increased slaughter and potentially a marginal herd expansion.

Lamb production declined 2 percent and exports 3 percent in 1983/84. Shipments to the United Kingdom were reduced sharply because of burdensome stocks there, but shipments to the USSR and Iran expanded. Mutton production declined 3 percent, but exports plummeted 45 percent. Because of the weak sheepmeat market, 25,000 tons of mutton and 10,000 tons of lamb from cold storage stocks were rendered into tallow in 1983/84. Sheepmeat production and exports are expected to recover in 1984/85.

In December, the New Zealand Meat Producers Board sold about 120,000 tons of lamb to Iran in exchange for 6 million barrels of oil. Delivery of the lamb will take place through September or October 1985. In 1983/84, lamb exports to Iran totaled 150,000 tons.

Wool production declined 2 percent to 364,000 tons in 1983/84. Drought in early 1983 had slowed fleece growth, and lower slaughterings reduced slipe wool production. Exports declined 4 percent to 268,000 tons (clean equivalent). Shipments to Japan, France, and the United States rose substantially, but exports to the United Kingdom, China, the Netherlands, and the USSR were down.

With good weather and pasture conditions over the past year, 1984/85 wool production should expand 6 to 8 percent. Global economic growth will strengthen demand, and export volume is expected to rebound.

Crop Production
Expands Substantially in 1984

Area planted to grain rose 21 percent in 1983/84, and the crop, harvested in the first half of 1984, was up 33 percent. Barley output rose 77 percent to 652,000 tons. Most of the additional supply is being exported; shipments may reach 400,000 tons. Wheat production declined 5 percent, and much of the crop is of poor quality because of wet harvesting weather. Thus, about 115,000 tons of milling-quality wheat will be imported, and weather-damaged wheat is being exported.

Area is up about 5 percent in 1984/85, with most of the growth again in barley.

New Zealand exports of fruit and vegetables rose 55 percent in value in 1983/84. Poor returns to livestock are shifting resources to horticulture. Area planted to kiwifruit expanded 15 percent in 1984, and production and exports rose 30 percent. Continued rapid expansion is likely in 1985. Apple production increased 20 percent in 1984, and exports were up 38 percent. *[Sally Byrne (202) 447-8376]*

EFFECTS OF EXCHANGE RATE DIFFERENCES ON AGRICULTURE IN NORTH AMERICA AND OCEANIA

Carol A. Goodloe and Sally Breedlove Byrne [1]

Abstract: Over the past 4 years, exchange rate movements, particularly the appreciation of the U.S. dollar, have had wide-ranging effects on agricultural producers in North America and Oceania. Grain, cattle, and hog producers in competing exporting countries have benefited relative to U.S. farmers. Effects on producers of other commodities have been mixed.

Keywords: Exchange rates, commodity prices, Canada, Australia, New Zealand, wheat exports.

The drop in U.S. market share of world agricultural trade in recent years has been well documented. One major reason often cited has been the appreciation of the U.S. dollar against the currencies of both major customers and major competitors. A USDA study concludes that a 20-percent rise in the value of the U.S. dollar would cause agricultural exports to fall 16 percent, and that in 1981/82 the strong dollar resulted in a $3-billion drop in agricultural exports, equivalent to 16 million tons of grain. 2/

Viewed from the opposite direction, how have U.S. competitors in Canada, Australia, and New Zealand benefited from the strong dollar? International monetary forces--exchange rate movements, inflation, and interest rate differentials--have a significant effect on farmers' incomes. However, this article will focus on the effect of exchange rate changes on farmers' returns. The following questions will be addressed: Have prices received by farmers in other countries improved as a result? What has been the impact on exports in the different countries? Has the impact differed by commodity?

The first section provides an overview of exchange rate movements of the North America and Oceania currencies against major currencies and against each other. Next, the specific commodity sectors important to each country are examined. Finally, because Canada and Australia compete directly with the United States in world wheat markets, likely impacts of exchange rate changes on wheat prices and exports in the three countries will be explored.

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[1] Agricultural economists, International Economics Division, ERS.

[2] Jim Longmire and Art Morey, *Strong Dollar Dampens Demand for U.S. Farm Exports*, FAER-193 (USDA, December 1983).

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Exchange Rate Movements

The U.S. dollar reached a low point against many major currencies during 1979 and 1980 and has since strengthened against them. It has appreciated against the currencies of Canada, Australia, New Zealand, and major European countries. The Japanese yen has also been strong throughout this period, with Canada's, Australia's, and New Zealand's dollars all declining against the yen and the U.S. dollar rising only about 5 percent against it.

The Canadian dollar has also been strong, appreciating against all currencies except the U.S. dollar and the yen. The Australian dollar has appreciated against the European currencies, but fallen relative to the others. The New Zealand dollar has been the weakest, falling against all the major currencies, in some cases quite substantially. The U.S., Canadian, and Australian currencies have also risen against many developing countries' currencies, which is important when considering wheat trade.

Percentage Changes in Currency Exchange Rates, 1980-1984

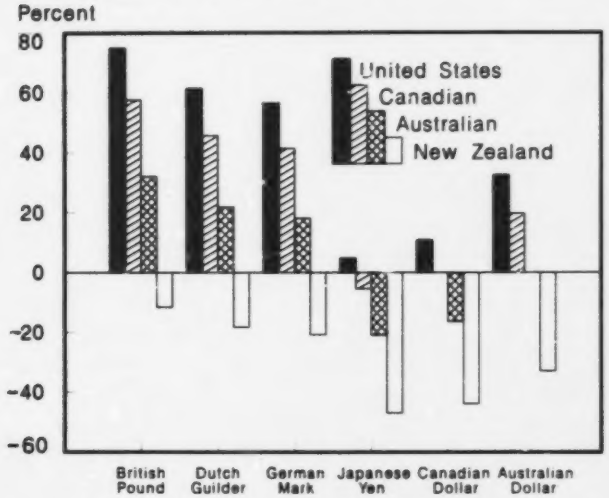

Table A.--Percentage change in CPI Between 1980 and 1984

Country	Percent	Country	Percent
United States	26.3	United Kingdom	34.2
Canada	39.0	Netherlands	20.0
Australia	39.8	West Germany	18.3
New Zealand	50.0	Japan	12.0

Inflation Adjustment Changes Differentials

The picture for the U.S. dollar is less dramatic if the exchange rates are adjusted for inflation. (A country's exchange rate adjusts over the long term, among other reasons, to equalize inflation rate differentials.) Inflation rates in many countries have been higher than in the United States.

In countries where inflation has been higher than in the United States, the U.S. appreciation has been partially offset. For example, between 1980 and 1984, the U.S. dollar appreciated about 11 percent against the Canadian dollar, but inflation, as measured by consumer price indexes (CPI's), was over 13 percent higher in Canada. In real terms, the U.S. dollar depreciated 2 percent, although the U.S. dollar appreciated strongly in 1983 and 1984. Inflation in West Germany and Japan has been lower than in the United States, meaning the U.S. dollar has appreciated more in real terms than in nominal terms.

Table B.--Exchange rates

	Canada	Australia	New Zealand
	Local currency/$U.S.		
1980	1.169	.878	1.027
1981	1.199	.870	1.149
1982	1.234	.983	1.330
1983	1.232	1.108	1.495
1984	1.295	1.137	1.729
Jan.	1.248	1.105	1.541
Feb.	1.248	1.069	1.520
Mar.	1.269	1.052	1.497
Apr.	1.279	1.083	1.515
May	1.294	1.105	1.539
June	1.304	1.133	1.555
July	1.323	1.197	1.784
Aug.	1.303	1.182	2.003
Sept.	1.314	1.201	2.039
Oct.	1.318	1.197	2.056
Nov.	1.316	1.164	2.027
Dec.	1.320	1.188	2.067
1985			
Jan.	1.324	1.226	2.122
Feb.	1.354	1.353	2.200
Mar.	1.387	1.435	2.197

March 1985 is estimated.

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Australia

U.S. Dollar's Strength Benefits Australian Agriculture

The Australian dollar declined in value against the U.S. dollar through 1982, and the Government announced a 10-percent devaluation in March 1983. Over the next year, the Australian currency regained most of its predevaluation value. Farm organizations and the rural press voiced concern over lost competitive advantage. However, the currency began to slip back in April 1984 and has been sliding downward since.

Exchange rate movements have interacted with many other economic, policy, and environmental forces confronting Australian agriculture. This section describes the impacts of exchange rates in relation to these other forces. The strong U.S. dollar has had very different effects on the various agricultural enterprises. Returns to grain, beef, and cotton were helped by the weakening currency. Returns to wool and sheepmeat were hurt by competitors' currency devaluations, which reduced Australia's competitiveness. Of course, most Australian grain producers also raise sheep or cattle, and most livestock producers grow field crops. Thus, many farmers have felt dissonant effects from their currency's recent movements. Dairy and sugar prices are so low on world markets that these movements have had an insignificant impact on farmers' returns.

U.S. corn export prices fell 21 percent between March and December 1984. Because of the decline of the Australian dollar relative to the U.S. dollar, Australian barley prices remained unchanged until December, when large harvest supplies caused some weakening. Exchange rate movements shielded Australian producers from the drop in U.S.-dollar denominated prices on the world market.

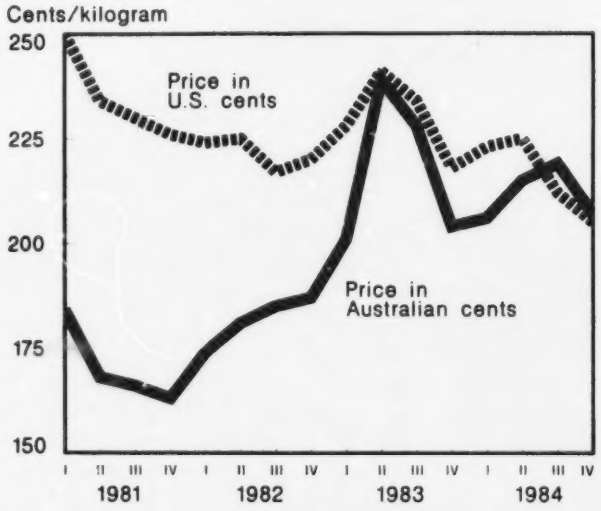
Australian beef prices depend principally on domestic demand and U.S. prices. In 1984, Australian beef production declined 12 percent. The reduced supplies strengthened prices on the domestic market (about 45 percent of sales). The United States is the largest foreign buyer, and prices received in this market are substantially above prices received in developing country markets. Thus, U.S. manufacturing beef prices are the benchmark for export returns. The U.S. import price for Australian cow beef rose in the first 3 months of 1984, because U.S. dairy cow slaughter trailed expectations, before declining 15 percent between March and December. The Australian export price for cow beef to the United States (denominated in Australian dollars) followed the U.S. import price up early in the year. Then, as the Australian dollar slipped, the export price steadied and closed 1984 near the year-earlier value.

Cotton is a highly profitable crop in Australia, and the strength of the U.S. dollar has been a major factor in maintaining returns to Australian cotton growers. Although U.S. producer prices peaked in 1980, Australian prices continued to increase through 1983 and declined less in 1984 than did U.S. prices.

Lower Australian Dollar Has Not Helped Sheep Industry

The sheep industry has not benefited from the decline in the Australian dollar. Neither sheepmeat nor wool is traded in U.S. dollars. Mutton and lamb exports have met stiff price competition in Middle Eastern and Asian markets from the sheepmeat, poultry, and beef exports of South America, Eastern Europe, and the EC. The Australian Wool Corporation raised the minimum reserve price following the March 1983 devaluation.

U.S. Import Prices vs Australian Export Prices for Cow Beef



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However, the Australian dollar appreciated against the currencies of its major competitors—South Africa and New Zealand. The Australian dollar continued to rise against these currencies through 1984. As a result, these countries were able to draw down stockpiles while their prices rose, and Australian wool stocks increased substantially. The Australian dollar has also risen against the currencies of major wool-importing countries, except the United States.

New Zealand

Having declined from 1981 through early 1983, the New Zealand dollar then remained reasonably stable against the U.S. dollar through June 1984. The new Labor Government announced a 20-percent currency devaluation in July as part of broad-ranging economic policy shifts (see New Zealand article). The devaluation improved prospects for the beef, wool, and horticultural industries, but dairy and fat lamb enterprises likely are receiving less benefit. Increased import costs will exacerbate inflation in New Zealand, and agriculture will face higher on- and off-farm costs.

Devaluation Aids Beef More Than Sheepmeat

Prices received for exported beef in 1983/84 (July-June) averaged near 1982/83. The devaluation immediately raised beef prices 50-60 New Zealand cents per kilogram, to above the trigger prices of the stabilization scheme. Consequently, producers paid levies of around 20 cents per kilogram into the New Zealand Meat Producers Board through September 30, the end of the marketing year. Minimum and trigger prices for the 1984/85 season were raised substantially, and levies are not being assessed this year.

Beef prices were above support prices prior to devaluation, but subsidies were being paid to sheepmeat producers. The devaluation did not raise prices above SMP levels, and prices received by farmers have actually been down slightly in 1984/85 (appendix table 7). Improved local-currency export returns are being used to reduce Government subsidies rather than increase farmers' incomes.

Wool Prices Higher

Wool auction prices in 1983/84 (July-June) were up 16 percent from a year earlier but remained below minimum price supports, so that unit returns to farmers were unchanged. However, the New Zealand Wool Board was able to reduce its stocks from 285,000 bales (equal to over a tenth of annual production) to 92,000 on June 30, 1984. The Board's profits from these sales, as well as savings on storage and interest expenses, benefit producers. The 20-percent currency devaluation was reflected immediately in higher prices. Thus, at least 85 percent of the New Zealand dollar's fall is expected to be captured in higher wool prices, now running around a tenth above the minimum support price.

The world market for dairy products is depressed by the huge U.S. and EC stockpiles, as well as by surpluses in Australia, Canada, and New Zealand. Prices have been declining for 3 years, and sales are being made below GATT minimums. Thus, the New Zealand Dairy Board will be unable to capture much price advantage from the New Zealand dollar's decline. However, with the currency value low, New Zealand can more easily rebuild its market share and work down stocks, aiding Dairy Board returns.

New Zealand exports a wide range of fruits and vegetables, largely fresh, but also preserved and prepared. For most of these items, exports can be maintained at the same price levels in importing countries' currencies--yielding higher prices in New Zealand dollars. For those commodities suffering from oversupply, New Zealand should be able to increase export volume without lowering prices received by farmers.

Canada

The Canadian dollar has eroded steadily against the U.S. dollar since 1977. Because the United States and Canada are each other's largest trading partners and share a relatively free border, the exchange rate has a direct and often immediate impact on prices and trade of various agricultural commodities. The agricultural trade balance has narrowed dramatically in Canada's favor in recent

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years, with a wide range of commodities benefiting from Canada's weakened currency.

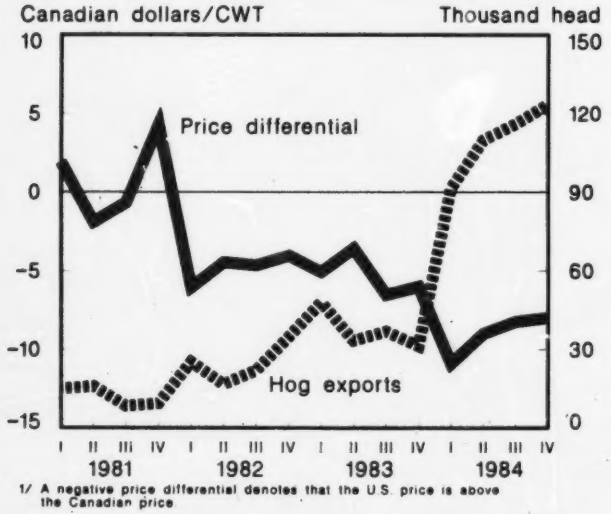
Strong U.S. Dollar Cuts Pork Exports to Canada

Trade in pork and live hogs has been significantly affected by the exchange rate differential. Over the past 5 years, U.S. pork exports to Canada have fallen more than 80 percent, while U.S. pork imports from Canada have grown by three-fourths.

Canadian hog prices have historically followed U.S. prices because of the large U.S. market and relatively free trade in pork and hogs. Because of the divergence in exchange rates, Canadian hog prices (expressed in U.S. dollars) have been below U.S. prices; the discount ranged from $3.50 per cwt in 1982 and 1983 to over $5.50 in 1984. With the sharp rise in the U.S. dollar in early 1985, this differential has widened even further. This wide differential has encouraged Canadian producers to market their hogs in the United States.

Other factors have also contributed to the wide spread in prices. In recent years, the U.S. meatpacking industry has lowered costs and improved efficiency relative to Canadian plants. Strikes and plant closings plagued the Canadian industry in 1984, as management tried to cut wages. But even if efficiency is improved and costs are lowered in Canadian plants, the strong U.S. dollar will continue to make it profitable for Canadians to market their hogs in the United States.

U.S.-Canadian Hog Price Differential and Live Hog Exports from Canada



1/ A negative price differential denotes that the U.S. price is above the Canadian price

Vegetables Affected Also

The exchange rate difference is also having an impact on trade in vegetables. Although Canada is a large importer of U.S. fresh vegetables--and will continue to be because of its climate--Canadian exports to the United States have grown substantially in recent years. Potato exports, the most significant item, have more than doubled over the last 5 years. U.S. producers claim Canadians are undercutting their prices, which implies Canadian exporters may be using the exchange rate advantage to penetrate the large U.S. market. Canadian potato exports to the United States have been up 70 percent in 1984/85.

Exports of certain other cool-weather vegetables, although still small, have shown large increases--carrots, cabbage, onions. U.S. producers of these vegetables have voiced similar complaints about low prices resulting from the influx of Canadian vegetables into the Northeast.

The impact of exchange rate movements on Canadian barley and rapeseed producers and exports has not been uniform. Over half of Canada's barley exports go to centrally planned countries, and thus the exchange rate impact is less certain. However, if Soviet grain purchases are paid for with gold or petroleum sold on world markets in U.S. dollars, Canadian exporters gain a price advantage when the U.S. dollar appreciates against the Canadian dollar. Canadian barley also goes to Japan, where the Canadian dollar has depreciated, and to Western Europe, where it has appreciated. Most rapeseed exports go to Japan. But the Japanese pay premium prices for Canadian rapeseed, and supply rather than price has been the limiting factor on exports.

Canadian producers of commodities that are exported to the United States, or to markets that compete with U.S. suppliers, have generally benefited from a weak currency relative to the U.S. dollar through expanded export volumes, higher prices, or both. But Canada also imports machinery and other agricultural inputs from the United States, which has increased the cost of

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production for Canadian farmers because of higher prices.

Wheat Trade and Exchange Rates

The United States, Canada, and Australia are major competitors in world wheat markets, accounting for about three-quarters of world exports. Since 1980, the U.S. market share has dropped from 44 to 36 percent, whereas Canada's share has risen from 17 to 20 percent. Australia's market share has fluctuated with its highly variable production, ranging from 7 to 14 percent over the past 5 years. Given its dominance in world wheat trade, the United States is generally considered to be the price setter.

When purchasing wheat, an importer has to consider not only the price of wheat, but also the price of various foreign currencies. The index in table C measures the change in wheat importers' costs of purchasing U.S., Canadian, or Australian dollars. The index is constructed by weighting each importer's exchange rate by its share of wheat imports with the respective exporter.

Regional variety in export markets accounts for much of the difference in the exchange rate index. The three countries vie for the major wheat markets--the USSR, China, and Japan--while other import markets vary regionally. Australia exports a large share of its wheat to Asian and Middle Eastern markets, and practically none to Europe or Latin America. Both Canada and the United States export to all parts of the world, including Europe and Latin America.

A sizable share of each country's wheat exports goes to centrally planned economies--the Soviet Union, China, Eastern Europe, and Cuba (appendix table 8). For 1976-78--the period on which the market share of the index is based--the United States exported about 15 percent of its wheat to centrally planned economies, Canada 42 percent, and Australia 30 percent. The U.S. share has been higher in recent years, as wheat exports to China have increased. Because these countries do not have convertible currencies or exchange rates, they are not included in the index.

Both the U.S. and Canadian indexes have risen dramatically in the 1980's, reflecting the strength of their currencies relative to their major customers. The Australian index, although initially higher, has changed little over the past 5 years. The Canadian and U.S. indexes are heavily influenced by Brazil, which takes about 6 percent of each country's total wheat exports. Because of rapid inflation, Brazil has had continuous devaluations. If Brazil is excluded, the index for Canada in 1983/84 would equal only 116.4. The indexes would show a much less rapid increase if they were adjusted for relative inflation rates between countries, because many developing countries have experienced severe inflation in recent years.

Competitors' Response

The strong and appreciating U.S. dollar has elicited diverse responses from major U.S. competitors. Argentina, the EC, Canada, and Australia control exports through governmental or statutory authority. Argentina's response has been straightforward. With its critical foreign exchange needs and abundant wheat supplies this year, Argentine traders undercut other exporters' prices by at least US$40 per ton in order to ship out its wheat crop even more rapidly than usual. The EC is able to export its wheat at lower subsidies, and most analysts believe that the strong U.S. dollar has encouraged a larger volume of EC exports.

Table C.--Trade-weighted exchange rate index for wheat

Year	United States August-July	United States July-June	Canada 1/	Australia 2/
	April 1971 = 100			
1970/71	99.7	99.4	101.0	101.4
1979/80	154.2	149.5	164.3	246.7
1980/81	247.3	239.3	227.9	258.3
1981/82	390.2	374.8	368.6	252.9
1982/83	814.6	747.5	790.5	221.7
1983/84	2,361.8	2,165.6	2,396.2	230.9

1/ August-July marketing year.
2/ July-June trade year.

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The Canadian and Australian responses have been more complex. In December 1983, the Australian Government loosened restrictions on exchange rates, allowing the Australian dollar to float. The Australian Wheat Board (AWB) began pricing its wheat in U.S. dollars with the stated purpose "to safeguard its daily export pricing from the risk of constant daily exchange rate fluctuations." The AWB can also buy and sell currency futures. Exchange rate movements remain a major factor in AWB marketing decisions, as farmers' incomes depend on maximizing returns in Australian dollars.

Through 1984 and early 1985, most analysts predicted that the U.S. dollar would weaken. The AWB, faced with an enormous 1983/84 crop to market, thus had even greater incentive to sell the wheat quickly before the exchange rate advantage was lost. However, a large portion of the crop was of poor quality, and if it had been disposed of at too low a price, the Australian Government would have been required to expend Treasury funds to meet its underwriting of the initial price (GMP). The potential need for a Government bailout gave the AWB greater incentive to maximize returns, so export prices were kept close to prices of competing U.S. grains.

For Australian wheat growers, the strong U.S. dollar means only slightly higher returns for their 1983/84 crop, because the GMP formula allowed a 6-percent increase despite declining world trade prices. However, the improved export returns to the AWB provide a higher base for setting the initial prices for the 1984/85-1986/87 crops.

With stocks burdening the handling system and accruing sizable interest charges, and stiff competition on the world market, the AWB is under pressure to move the wheat. The continued weakening of the Australian dollar could give the Board more flexibility to undercut U.S. prices in 1985.

Canada's situation has differed from Australia's. During the 1970's, the grain handling and transportation system limited grain exports. As part of an overall effort to improve the system and expand exports, in 1976 the CWB set an ambitious target of 30 million tons of grain exports to be achieved by 1985.

In the 1980's, the CWB has been very aggressive in trying to meet that goal. The strong U.S. dollar may have made it possible to undercut U.S. prices, especially on low-quality wheat in developing country markets. Some farm groups in Canada complained that the Board was not getting the best price possible in its efforts to move out large quantities of grain. Nevertheless, the target was achieved in 1983/84--a year early. Thus, improvements in the transportation system and CWB policy objectives are mainly responsible for the increase in grain exports in the 1980's.

Wheat Prices and Exchange Rates

The trade-weighted index suggests that importers would face lower foreign exchange costs for Canadian and Australian wheat than for U.S. wheat, other factors being equal. If true, these lower costs could be passed on to customers through lower export prices or the benefits could be given to producers through higher returns, or some combination of both. Which course has been followed partly depends on the strategy of the Australian and Canadian wheat boards and how responsive to prices they think their customers are.

Price differentials provide some evidence as to how the wheat boards have reacted to the strong U.S. dollar (see charts). (The absolute differences are less important than changes in those differences over time, because the prices themselves are not strictly comparable because of differences in quality, transportation, and handling costs.) Canadian and Australian export prices have risen relative to U.S. prices since 1981/82, which suggests that the wheat boards have attempted to return higher margins to producers rather than undercut U.S. prices.

The Canadian farm price averaged about $15 per ton above the U.S. farm price through the early and middle 1970's, but increased to around $26 in the late 1970's and early 1980's, when the Canadian dollar began to decline against the U.S. dollar. The differential peaked in 1980, possibly reflecting the price premiums Canada received following the Russian grain embargo.

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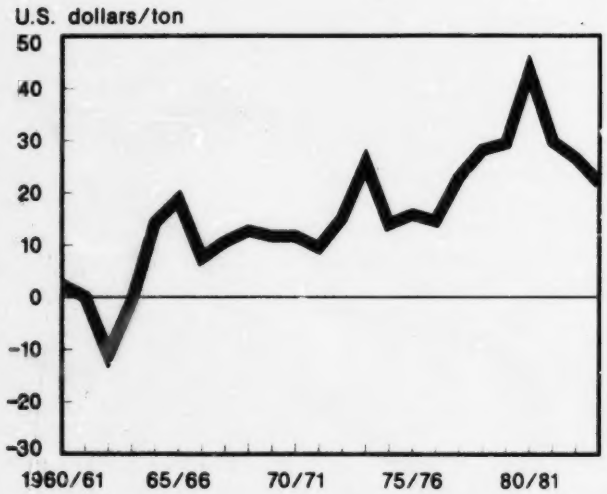
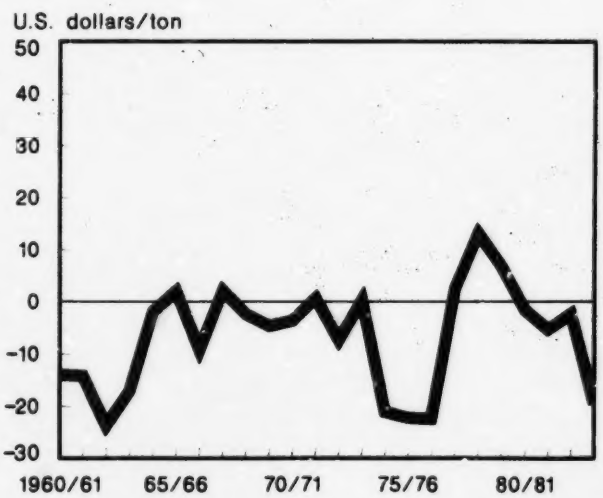
Wheat Price Differentials

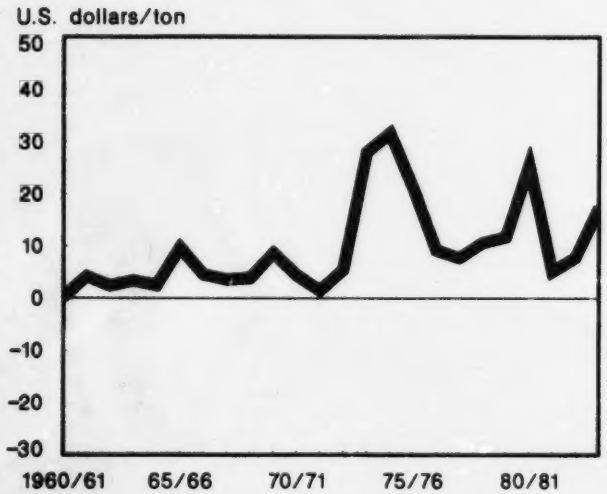
Canadian vs U.S. Farm Price



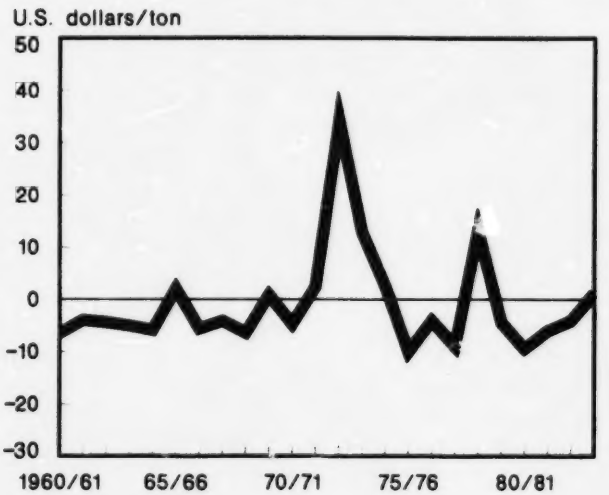
Australian vs U.S. Farm Price



Canadian vs U.S. Export Price



Australian vs U.S. Export Price



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The U.S.–Canadian export price differential has been more variable than the farm price differential. The export price differential was also high in 1980. Since then, the farm price differential has fallen while the export price differential has remained below the peak of 1980, which suggests that the CWB has not used the exchange rate advantage to either pass on higher returns to producers or lower prices to customers.

Although the Canadian dollar has fallen against the U.S. dollar, it has appreciated against most other currencies. Thus, the strong Canadian dollar has theoretically had a negative impact on Canadian wheat prices. In addition, the strong U.S. dollar has weakened U.S. wheat prices and Canadian wheat prices have suffered accordingly. One study concludes that Canadian grain prices have probably not improved as a result of the U.S. appreciation.

In the early 1960's, the differential between U.S. and Australian farm prices was very high in U.S. farmers' favor because of Australia's price stabilization program. The differential was small from the mid–1960's until the mid–1970's, when world price increases outpaced Australia's support prices. Some of this loss was made up in the late 1970's. However, the differential has moved against Australian farmers since 1979/80 because of rapid escalation of transportation and handling charges.

The export price differential has been smaller than the farm price differential, suggesting that the AWB has acted to maximize gross returns each year.

AGRICULTURAL INPUT PRICE CHANGES IN THE UNITED STATES, CANADA, AND AUSTRALIA

J. Larry Deaton [1]

Abstract: Input price indexes for a number of different inputs are used, together with the Prices Paid by Producers Total Index, to examine how agricultural producers in the United States, Canada, and Australia may have been affected by changes in input prices.

Keywords: Agricultural inputs, indexes, fuel, fertilizer, feed, machinery, wages, credit, rent, Canada, Australia.

The recent issue of the competitiveness of U.S. agricultural products in world markets has focused on export prices; possible subsidies used by U.S. competitors; and macroeconomic factors, such as inflation, interest rates, and exchange rates. Although important, these factors all tend to focus the issue of competitiveness on the product side of the market. Ideally, a measure of profits or net returns would give a much clearer picture of the competitiveness of producers in the United States, Canada, and Australia. Thus we would like to have some measure of real gross returns, which are likewise a function of real prices and quantities marketed and real total expenditures, which themselves are composed of the quantities of inputs used and the real prices paid for these inputs.

The direct implication of this is that the total cost of inputs is at least as important as gross returns in determining how competitive Canadian and Australian farmers will be vis–a–vis U.S. farmers. Detailed cost data for agricultural producers in each country are not generally available, and when available are not truly comparable. Input price indexes, on the other hand, are available for each of the countries for a number of input categories.

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This article seeks to answer--in a very preliminary way through the use of input price indexes--how part of the input side of the equation has changed in recent years.

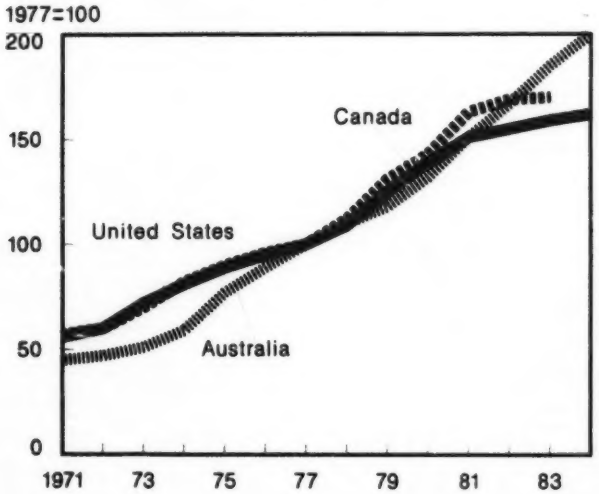
Input Price Indexes

Agricultural input prices have changed in distinctly different ways over time in each of the three countries, forcing agricultural producers in each of the countries to adjust differently. The overall change in input prices can be measured by the Prices Paid by Farmers Index. Using similar price indexes for each country, it can be seen that movements in the input prices for each of the three countries have followed much the same path in recent years. The respective indexes for the United States and Canada, in particular, have closely coincided.

In the 1980's, the Canadian index has exhibited a more rapid increase than that of the United States. This is likely due to two factors. First, the Canadian rate of general inflation has been higher than has that of the United States and undoubtedly has had an effect on input prices. Second, the decline of the Canadian dollar relative to the U.S. dollar also has contributed to a more rapid increase in input prices for Canadian producers for many of the inputs that are imported.

Since 1970, movements in the price indexes of individual inputs have varied greatly within each of the three countries. Prices for fuel and energy-related inputs and for interest increased much more rapidly in all three countries than the prices for other inputs. In both the United States and Canada, the index for interest outstripped the fuel index. However, in Australia, the index for fuel skyrocketed from 100 in 1977 to 332 in 1983, with decontrol of prices having played a major part in this increase.

Prices Paid by Farmers Index: U.S., Canada, and Australia



Indexes alone, however, reveal only the relative increases in the prices of these inputs. These input price indexes thus indicate the pressures for adjustment that may be placed on farmers, but they are not in themselves sufficient for determining which country's farmers are more competitive.

Fuel and Energy Prices.--Major fuel and energy price increases came about for all three countries after the 1973 OPEC price increases. For the United States and Canada, fuel price increases moderated after 1981, with U.S. prices actually declining. After 1981, gasoline prices in Canada--as seen by consumers--were higher than in the United States, but farmers receive a full tax rebate, which can be significant. Australia differs markedly here, with fuel prices continuing to rise even with a softening world oil market. This was caused by the decline in the value of the Australian dollar (together with much of the world oil priced in U.S. dollars) and the implementation of Government policies that increased taxes on the gasoline used in the farm sector. Current prices for producers in each of the countries do not differ greatly.

With the recent drop in the OPEC posted price for crude oil, spot prices dropping considerably below the official prices, and major dissension among OPEC members with respect to established production quotas, downward pressure on petroleum prices is likely to continue throughout 1985. Agricultural producers in all three countries should benefit accordingly.

Agricultural Chemicals Prices.--Prices for pesticides--insecticides, herbicides, and fungicides--increased in recent years, with significantly stonger rises registered in Canada and Australia. Again this is principally due to the effects of a stronger U.S. dollar and higher rates of inflation in these other countries. For example, the

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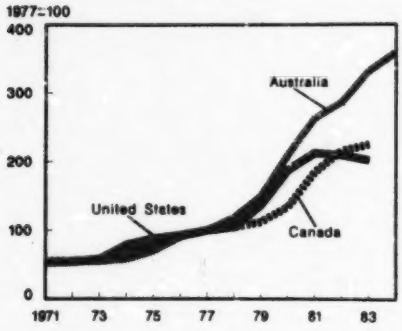
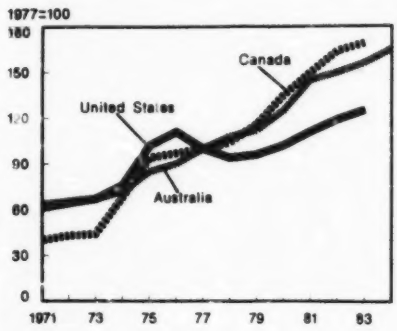
Prices Paid by Farmers Index

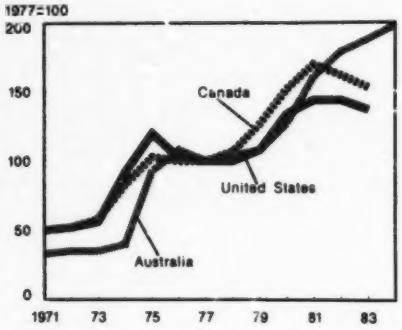
Fuel and Energy



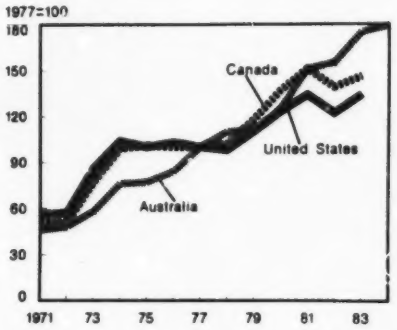
Agricultural Chemicals



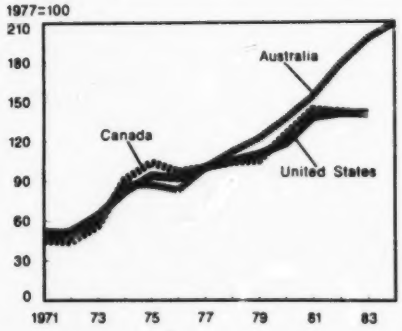
Fertilizer



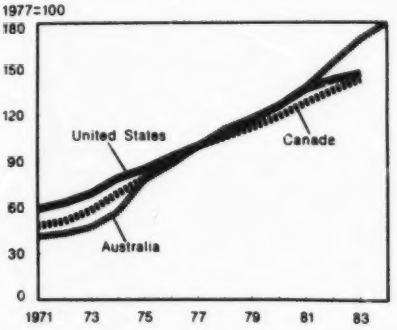
Feed



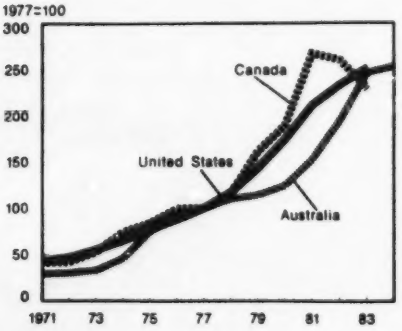
Seed



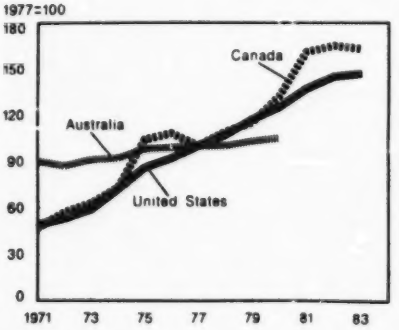
Agricultural Wages



Interest Rates



Rent



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increased value of the U.S. dollar has raised prices in Australia, because over 90 percent of the active ingredients in the pesticides are imported, mostly from the United States.

Pesticide prices in 1985 are likely to remain relatively stable in all three countries, with perhaps some decreases for prices for insecticides and fungicides. The introduction of new and improved agricultural chemicals somewhat clouds the picture here, with considerable variability in the prices of individual products likely at the farm level.

Fertilizer Prices.--Fertilizer prices in all three countries have followed the same general pattern. Prices fell for the United States and Canada after 1981. In 1984, prices rose during the first half of the year, only to fall back to 1983 levels by the end of the year. Prices are expected to remain at 1984 levels during 1985.

Australian prices have increased not only because of exchange rate movements, but also because of an existing contractual agreement that calls for a minimum amount to be purchased each year from Christmas Island. Because the prices of Christmas Island fertilizers are significantly higher than Florida phosphate fertilizers, Australia has not benefited from the lower price source.

Machinery Prices.--Agricultural machinery prices have risen in all countries, even with a severely stressed farm machinery industry. In fact, they have more than kept pace with increases in the Prices Paid by Farmers total index. For example, in the United States, between 1977 and 1983, the index rose from 100 to 143, while the machinery price index went from 100 to 184. However, the USDA machinery price index may considerably overstate the actual increase in machinery prices as seen by farmers. The widespread use of rebates, below-market interest rates, deferred payments, and a number of other incentives have had some effect on moderating the increase in prices of these implements, but these factors do not get reflected in the USDA index for machinery.

The Canadian machinery market closely resembles that of the United States, and actual prices--in terms of U.S. dollars--for purchases of machinery do not vary greatly between the two countries. Australia, on the other hand, has long tried to protect its small agricultural machinery manufacturing industry behind tariff walls. The result of this policy has been distinctly higher farm machinery prices paid by Australian farmers.

Feed and Seed Prices.--The prices of feedstuffs in the three countries are largely determined in the world market for coarse grains and protein meals, with U.S. support prices serving as a price floor to some degree. In certain years, both Canadian and Australian barley prices haven risen significantly relative to U.S. corn prices, because of unusual supply and demand differences in the individual countries. Generally, however, the paths of feed grain prices for the three countries over time have been rather close together. The main differences, in fact, are largely composed of differences in domestic prices due to exchange rate changes. If the price indexes for each country were indeed expressed in U.S. dollars, the differences among the indexes would be minimal, and would be largely due to differences in grades and quality in the feedstuffs of a given year in each country.

Seed prices for all three countries exhibited the same behavior until 1977. Since then, seed prices in Australia have climbed much more rapidly. The reasons for this difference are not clear, with perhaps trade barriers on seed imports being the principal factor.

Wage Rates.--U.S. farm wages rose slightly less--from 100 in 1977 to 147 in 1983--than did the total index for production inputs, which went from 100 to 153 over the same period. The Canadian wage ratio experienced much the same kind of increase as did the United States, rising from 100 to 143, while Australian farm wages went from 100 to 169.

The Australian agricultural labor market differs markedly from that of the United States or Canada. It does not have a source of low-income wage earners to draw upon to the same degree, and the farm sector must contend with highly active unions, which have succeeded in pushing farm wages up. Nevertheless, the greater increase since 1977 is probably due not so much to unions as it is

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to higher inflation in the Australian general economy, along with indexed wages.

Farm Credit and Interest Rates.--Interest rates in the United States, Canada, and Australia have increased significantly in recent years, with interest indexes rising from 100 in 1977 to 251, 229, and 243 respectively. Producers in all three countries have been adversely affected, with the increased cost of borrowing having made capital investment very costly. One important difference among the interest indexes for the three countries is that the U.S. index--unlike the other two--is not strictly an interest rate index, but is instead an index based on changes in the interest charges per acre on debt secured by farm real estate.

The relatively higher U.S. real interest rates have also had an effect on exchange rates and, by driving the U.S. dollar to recent record levels, have increased the prices of U.S. goods in foreign markets. Current expectations about movements in interest rates are roughly the same in each country, with perhaps a slight increase in rates expected in the second half of 1985.

Rent Paid for Farmland.--The indexes for rent paid for farmland have differed greatly among the three countries. The relatively slow increases in the Australian index through 1980, when the series ended, is not surprising when the relative abundance of Australian farmland is considered. Much potential land remains undeveloped in Australia and, hence, provides a ceiling on the current rent of land that has already been developed.

The index for the United States shows the steady growth in the rent paid for farmland over the entire period, while the Canadian index has been much more volatile. At least some of the rapid increase in the latter index over the 1979-81 period is probably ascribable to the higher Canadian inflation.

A serious question about the comparability of the farmland rent index across countries can be raised. The indexes for items such as fuel or fertilizer are for inputs that are internationally traded and that have easily defined units. Farmland differs greatly from the other inputs in these respects. Moreover, the definition of the price used for the index varies from country to country. In the United States, the index is for farm services and cash rent paid; in Australia, it is for net rent; finally, in Canada, it is a gross rent index that is constructed.

A rather general conclusion that can be made is that recently the United States has experienced relatively slower increases in individual input prices than has either Canada or Australia. The future for input prices in all three countries appears to be roughly the same. Increases in these indexes should be moderate over the next few years, with actual declines possible. Continuing high interest rates, depressed agricultural prices, and anticipated policy changes in the United States are all important factors here.

Conclusions

The total cost of inputs is a result of both the prices paid for inputs and the quantities used of these inputs. More efficient farmers tend to employ relatively fewer quantities of inputs per unit of product; this is true for farmers whether they are located in the United States, Canada, or Australia. Differences in efficiency exist mainly because different levels of technology are being employed or because size economies within a fixed level of technology can be achieved. The level of available technology for the agricultural producers of these countries is not greatly different, however. Differences in competitiveness could also arise on the input side if some farmers paid less for inputs than others did.

Input prices are largely determined by the demand and supply of inputs in each country. While input markets tend to be free, each one has its own particular institutional character, which varies widely from country to country. The demand for inputs is essentially a derived demand--one derived from the demand for farm products. Thus those factors that are seen as lowering commodity prices, such as proposed changes in U.S. commodity programs, will reduce the demand for certain agricultural inputs. Other things being equal, and depending on the inputs considered, this could reduce the prices paid for these inputs. Changes on the input supply side could reverse this, however.

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A comparison of the separate input price indexes provides additional information concerning how farmers in the United States may have gained or lost compared with the farmers of Canada and Australia. Taken alone, these indexes remain less than definitive in settling this issue of competitiveness, however. Only a full examination of net returns for comparable producing units in the different countries can completely resolve this important question.

THE 1985 FARM BILL: IMPLICATIONS FOR CANADA, AUSTRALIA, AND NEW ZEALAND

Mary Anne Normile [1]

Abstract: The Administration's proposed 1985 farm bill will, if passed, affect agricultural trade, production, and farm income not only in the United States but also in Australia, Canada, and New Zealand. Lower U.S. price supports would tend to depress world prices for wheat and coarse grains, which would in turn reduce farmers' returns in Australia and Canada. Livestock producers in these countries may be affected by changes in feed costs as well as by changes in U.S. dairy policy. Although foreign producers of some commodities, such as sugar and dairy products, may find their opportunities to export enhanced as a result of more market-oriented U.S. commodity programs, foreign grain producers could suffer reduced export prospects.

Keywords: Farm bill, commodity programs, agricultural trade, wheat, coarse grains, livestock, dairy, oilseeds, sheep, wool, sugar, Australia, Canada, New Zealand.

The Agricultural Adjustment Act of 1985--the farm bill--is the administration's proposal for legislation that will provide the framework for farm programs for the next 4 years and farm policy through the end of the century. The evolution of this farm bill is being watched with interest not only by U.S. farmers, but also by their counterparts in Canada, Australia, New Zealand, and other agricultural exporting countries. Its outcome could have far-reaching repercussions for agricultural trade, production, and incomes in the United States and abroad.

The farm bill provides legislative authority for a number of farm programs, including conservation, rural development, food stamps, research, extension, and commodity support programs. The United States must pass enabling legislation for most programs every 4 years, or revert to the permanent legislation of the 1930's and 1940's. The 1981 Agriculture and Food Act continued with relatively few changes the programs established through earlier legislation.

The farm bill's commodity programs are the most controversial provisions of the 1985 version. Commodity programs provide support for producers of wheat, feed grains, rice, cotton, peanuts, soybeans, sugar, honey, dairy products, and wool by means of loan programs, target prices, acreage reduction programs, allotments and quotas, and reserve stock programs. Prices of wheat, feed grains, cotton, and soybeans are supported through the nonrecourse loan program. Government purchases support dairy prices. Farm income is supported through a system of target prices and deficiency payments, and cash or in-kind payments for diverting land. Price stabilization is sought through Government-owned and farmer-owned grain reserves, supported by acreage reduction and land diversion programs.

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Commodity programs have come under scrutiny because they are seen to be increasingly ineffective in supporting prices and incomes, and because they have grown costly in a time of strong pressure to reduce Government expenditures. The farm sector's economic distress--falling incomes and land values, growing indebtedness, and an impending credit crisis--has grown even though expenditures on farm programs have mushroomed. In 1983/84, U.S. Government outlays on agriculture reached a record $20.6 billion, of which $18.9 billion was spent on commodity programs. Expenditures in that year, ballooned by the Government's Payment-in-Kind (PIK) program, far exceeded the previous year's record of $11.6 billion and were six times the average of the 1970's. 2/ Meanwhile, stocks of wheat, corn, and dairy products reached record highs and export volume fell.

Many of the problems besetting agriculture were beyond the scope of farm policy. Weakening in farm exports, which account for 20 to 25 percent of the total value of U.S. farm production, could be traced to a worldwide recession; the high value of the U.S. dollar increased the cost of U.S. products to importers; huge debt-servicing costs reduced the purchasing power of developing countries; and expansionary export policies helped competitors' exports. Persistent high interest rates produced by restrictive monetary policies further eroded U.S. farm incomes by increasing the costs of farmers' borrowing, while declining asset values have made farm credit increasingly difficult to obtain.

However, commodity programs further disadvantaged U.S. farm exports by insulating U.S. farmers from market forces and reducing their price competitiveness on world markets. By providing some commodities a floor price that exceeded the market-clearing level, the loan rate also sent a signal to foreign producers to increase production.

Changes to Existing Programs

The 1985 farm bill proposes fundamental changes in the way farm programs are operated, in an attempt to return to a more market-oriented farm economy and to reduce burdensome outlays on commodity support programs. The proposals represent a sharp departure from the policies that have shaped U.S. agriculture since the 1930's. They are designed to make farm programs more market-oriented, to provide more flexibility in agricultural policymaking, to ensure consistency between commodity and other agricultural policies, and to set out long-term agricultural policies that will provide producers with better information for their production and investment decisions.

To carry out these objectives, the Administration has proposed the following changes to existing programs:

- Price and income supports would be set in alignment with market prices; loan rates and target prices would be tied to a percentage of a 3-year moving average of past U.S. market prices.

- No minimum loan rates or target prices would be specified; this would allow supports to move in relation to changes in market prices.

- Price and income supports for all commodities covered by the farm bill would be placed on an equal footing (see table); by 1991, all commodities covered would be supported by target and loan rates equal to 75 percent of a 3-year moving average of U.S. market prices. Deficiency payments for most commodities would be phased out as target prices approached loan rates.

- The fixed price support system for dairy would be phased out and replaced with a target price/direct payment program, eliminating the need for Government purchases.

- Authority for supply control programs--acreage reduction, quotas, and allotments--would be repealed, with acreage reduction programs ending with the 1988 crop; the farmer-owned reserve would be eliminated.

- Limits on payments to farmers would be reduced from the current $50,000 to

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2/ Congressional Budget Office, *Reducing the Deficit: Spending and Revenue Options* (Washington, D.C., February 1985).

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Loan rates and target prices for commodities*
under proposed 1985 farm bill

Crop year	Loan rate	Target price	Voluntary acreage reduction program
	Percentage of 3-year moving average of U.S. market price		Percentage of base
1986	75	100	15
1987	75	95	10
1988	75	90	5
1989	75	85	Program authority ended
1990	75	80	" " "
1991, beyond	75	75	" " "

*Wheat, corn, barley, sorghum, cotton, rice.

$20,000 per farmer in 1986, declining to $10,000 in 1988 and beyond; a limit on nonrecourse loans of $200,000 per farmer would be imposed (loans in excess of this amount would be recourse, to be repaid with interest).

- The U.S. Government would be required to seek better access to foreign markets through negotiations to reduce barriers to trade.

The main effects of these proposals, if passed, include the following:

- In the near term, prices for many commodities currently supported above market-clearing levels would fall.

- U.S. Government expenditures on agricultural programs would decline.

- With the elimination of supply control programs, artificial impediments to increased farm production would be removed.

- Farm income supports would be targeted at middle- and low-income farmers.

Lowering U.S. prices will translate into lower world prices for many of the commodities covered by the farm bill. Canada and Australia have relatively open agricultural sectors with little insulation from changes in world market conditions, and New Zealand, under the new Government, is moving in the direction of greater reliance on market forces. A change in world price will affect the price received by producers in these countries, with direct impacts on farm income and output. Internal pricing policies could also be affected in countries that take the U.S. price as the basis for planning.

While these changes will have the greatest impact on producers of grain, where the U.S. role in world price formation is the most clear, other commodities will be affected through changes in relative prices. Any change in the product mix within the United States could impinge on export opportunities for other countries.

Effects on Wheat and Coarse Grains

Both Canada and Australia are important U.S. competitors in the world wheat market. In recent years, these three countries have accounted for 73 percent of total wheat exports. The United States tends to dominate, with approximately a 40-percent market share. Canada and Australia follow with about 19 and 11 percent of the market, respectively. Canada and Australia are smaller suppliers of coarse grains, while the United States is clearly the dominant supplier with a 60 percent market share. The United States has well-established commodity markets with relatively free access to all participants, where cash and futures prices are freely discovered (subject to the lower bound of the loan rate). Consequently, the U.S. price tends to serve as the benchmark for world prices of wheat and coarse grains.

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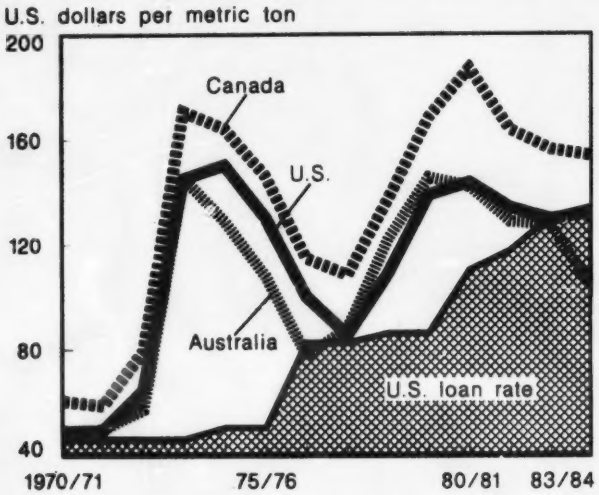
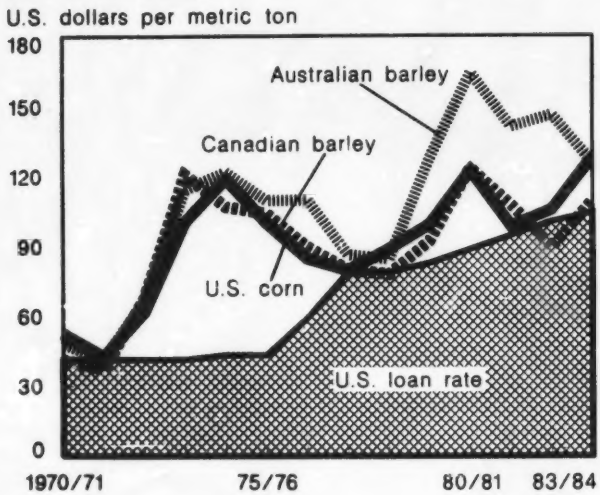
Because the U.S. Government, through the Commodity Credit Corporation's nonrecourse loan program, serves as the buyer of last resort for grains, the U.S. loan rate also serves as a *de facto* floor for world grain prices. The adjacent figures suggest that the U.S. loan rate has propped up world wheat and coarse grain prices on several occasions since 1970. High U.S. wheat stocks attest to the fact that the loan rate has kept prices above market-clearing levels. A reduction of the loan rate to a market-clearing level would permit world grain prices to decline initially until future production and demand levels began to converge. Lower prices would likely stimulate world import demand, and the relative strength of higher imports compared to price declines would determine the change in farmers' returns both in the United States and abroad.

Prices Received by Farmers for Wheat



Prices Received by Farmers for Coarse Grains



Both Canada and Australia look to the U.S. price in formulating their wheat prices. Because the prices announced by their respective wheat boards are guaranteed for the crop year, Canada and Australia must price competitively with the United States, while ensuring the highest possible returns to their producers. A decline in U.S., and therefore world, wheat prices will be transmitted to Australian and Canadian wheat producers through lower initial prices for wheat, barring offsetting foreign exchange movements.

Transmission of price changes to the Australian wheat producer will be delayed, however, by the Guaranteed Minimum Price, which establishes a minimum initial price based on returns during the last three seasons and expected returns in the current season. Australian farmers are thus protected from rapid price declines, and as a result, wheat production may not adjust much in the first year to a fall in the world wheat price. The GMP does not, however, protect farmers from continued price weakness. Because there is no GMP for barley, barley production would probably fall more rapidly as a result of a lower world price, freeing some barley area for wheat production.

Whether a drop in world grain prices would immediately affect Canadian production would depend in part on the timing of the price decline and the availability of offsetting cash payments to farmers. The Canadian Wheat Board's initial price, which is a guaranteed floor price based on the Board's assessment of market conditions, is usually announced prior to planting and remains in effect through the crop year. The initial price therefore protects Canadian farmers producing Board grain from intra-year price declines. Stabilization plans in Canada make payouts in times of falling grain prices. These plans would ease the adjustment by providing infusions of cash to grain producers for a few years.

In the longer term, production response in Australia and Canada would depend on their costs of production, as well as on the

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availability and profitability of alternatives to grain production. As relatively low-cost grain producers, Canada, and particularly Australia, would benefit if U.S. policies succeeded in producing a more open world grain market and if world import demand rose above current expectations because of initially lower prices.

The production alternative to wheat in many areas of Australia is livestock; increasing livestock production would depend on locating markets for any gain in output. In Canada, wheat is the crop of choice for many farmers, and the most profitable crop in the semi-arid farming area. In areas where rainfall is higher, rapeseed might prove more attractive than wheat and barley. Expanding Canadian livestock production would also depend on finding outlets for additional production.

Effects on Livestock and Dairy

Cheaper feed would expand livestock production in the United States and Canada, where intensive, grain-fed cattle production is practiced. Australia, which exports beef to both Canada and the United States, could see its cattle sector disadvantaged as grain-fed meat became more competitive with the pasture-fed Australian product. Returns to Australian and New Zealand producers would be hurt by the erosion of the premium U.S. market.

Lowering the U.S. dairy price support would result in some reduction of herd inventories in the United States and a temporary increase in the domestic supply of cow beef. This would directly affect U.S. imports of beef from both Canada and Australia through the countercyclical meat import law.

Lowering dairy price supports and reducing Government purchases of dairy surpluses would favor the New Zealand dairy sector, however. Although the United States is not a large commercial exporter of dairy products, it ships, on average, 200,000 metric tons of nonfat dry milk per year, mainly in concessional sales. (Total shipments of nonfat dry milk in calendar 1984 were about 300,000 metric tons.) The United States also occasionally sells surplus butter on the world market. Dairy product stocks from the United States, as well as the EC, overhang the world market and depress the medium-term and current outlook for dairy farmers in New Zealand and Australia. Lower Government stocks of dairy products would reduce U.S. surplus disposal activity. New Zealand, the second largest dairy exporter and a low-cost producer, would likely benefit from enhanced export opportunities.

Effects on Oilseeds

U.S. legislation currently in effect provides for a loan and purchase program for soybeans, with a support price equal to 75 percent of the preceding 5-year average price, excluding the high and low years, and subject to a minimum. The support price over the duration of the program has been lower than the market price for soybeans and, therefore, ineffective. As a result, lowering the soybean support price should have little impact on price or production of Canadian rapeseed, a close substitute for soybeans. Because soybeans are often grown in rotation with other crops, they tend to be more affected by other commodity programs than by the soybean loan rate. Consequently, lower price supports for corn could produce a shift of U.S. acreage into soybeans, depressing world oilseed prices.

Effects on Sheep and Wool

The price of domestically produced wool in the United States is supported through an incentive payment to wool producers. The payment is equal to a percentage of the difference between the national average market price and the support price. The United States is a small producer and a net importer of wool. Hence, U.S. price support changes would have little impact on world wool markets, or on wool production in Australia or New Zealand. Any additional output resulting from the wool program tends to substitute for imported wool, so a reduction in wool production due to lower price supports would probably increase wool imports. However, U.S. sheep are grown primarily for meat, and large changes in the wool price would be required to produce relatively small changes in U.S. wool output.

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Australia is the dominant exporter of wool, producing a high-quality product that is preferred by U.S. mills. Therefore, Australia would likely benefit from any increase in U.S. wool imports. Sheep production in Australia could benefit indirectly from a decline in world wheat prices, because wheat production, which competes with sheep production in many areas, would be less profitable.

Effects on Sugar

The price of sugar in the United States is currently supported through a nonrecourse loan program. Minimum support prices for raw cane sugar are mandated, and loan rates for refined beet sugar are set in relation to loan rates for raw cane sugar. Measures that effectively regulate the U.S. sugar program have been established by separate legislation. A Market Stabilization Price (MSP), which is higher than the loan rate, was instituted to reduce the likelihood of sugar stock accumulation by the Commodity Credit Corporation due to loan forfeiture. The MSP exceeds the loan rate by an amount equal to the interest on the loan and transportation costs, plus a small incentive to market sugar. A system of country-by-country quotas limits sugar imports to less than 3 million tons per year. Import duties and fees are also in effect.

U.S. domestic sugar prices are significantly higher than in the world market—about 21 cents per pound for raw sugar, compared with a current world market price of about 4 cents per pound (although a small percentage of sales are actually transacted at the low world price). Price supports are partly responsible for this price premium. The Administration's proposal would lower sugar supports to 18 cents in 1986, falling to 12 in 1989 and 1990. In 1991 and beyond, the support price would equal 75 percent of the 3-year moving average of U.S. market prices. In the long run, a lower U.S. support price could more easily be defended by means of tariffs and fees alone, which could lead to an easing of sugar import quotas.

Import restrictions, particularly quotas, have limited Australian access to the U.S. market. Australia, the world's fourth largest exporter of sugar with about 10 percent of the world market, accounts for about 8 percent of U.S. sugar import quotas. Less restrictive sugar import quotas could open the U.S. market to increased Australian shipments. Perhaps more important for Australia, however, would be the effect of a more open U.S. sugar market on world prices. The United States is one of the world's largest sugar importers, and opening up this market would strengthen the world price. A higher world price would offset any loss Australia would incur by losing the premium it currently gets on its U.S. quota sales.

Conclusions

The administration's farm bill is but one of several proposals, including alternatives proposed by farm groups and legislators, to be considered this year. It is too early to say what form the final 1985 legislation will take. Whatever legislation emerges from the debate could produce changes in current agricultural trade patterns. However, increasing U.S. farm exports will also depend on resolution of the developing countries' debt crisis, as well as a realignment of the value of the U.S. dollar.

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Appendix Table 1--Production of selected agricultural products: United States

Item	Record year before 1980	Volume in record year	1980	1981	1982	1983	1984
				Thousand tons			
Wheat	1976	58,480	64,618	76,169	75,250	65,857	70,637
Barley	1978	9,901	7,859	10,436	11,233	11,080	12,988
Sorghum	1979	20,546	14,712	22,333	21,212	12,384	21,994
Oats	1977	10,927	6,652	7,391	8,602	6,923	6,850
Corn	1979	201,656	168,787	208,330	209,181	106,042	194,319
Rice	1978	6,040	6,629	8,289	6,969	4,523	6,216
Peanuts	1979	1,800	1,044	1,806	1,560	1,495	2,008
Soybeans	1979	61,722	48,772	54,435	59,610	44,518	50,642
Sunflowerseed	1979	3,484	1,697	2,035	2,419	1,451	1,698
Hay	1978	147,847	118,866	129,910	135,389	127,699	136,786
Cotton	1979	3,185	2,422	3,406	2,604	1,692	2,894
Tobacco	1975	990	810	936	905	648	791
Potatoes	1978	16,616	13,737	15,358	16,108	15,146	16,404
Sugarcane	1975	25,713	24,460	24,864	27,007	25,547	25,427
Sugarbeets	1975	26,947	21,321	24,982	18,955	19,044	20,146
Citrus fruit	1977	12,722	13,619	12,528	10,938	12,345	9,744
Grapes	1976	5,076	4,044	5,946	5,947	4,995	4,644
Apples	1979	3,694	4,004	3,517	3,684	3,798	3,729
Peaches	1976	1,370	1,397	1,262	1,037	842	1,199
Pears	1979	775	814	814	730	703	648
Beef and veal	1976	12,148	9,999	10,353	10,425	10,748	10,728
Lamb and mutton	1976	168	145	153	166	170	169
Pork	1979	7,008	7,537	7,199	6,454	6,676	6,464
Poultry meat	1979	6,193	6,421	6,791	6,667	7,297	7,768
Eggs	1978	3,984	4,134	4,130	4,129	4,026	4,058
Milk	1979	55,978	58,298	60,334	61,599	63,488	61,688
Cheese	1979	1,686	1,807	1,940	2,060	2,186	2,127
Butter	1962	697	519	584	570	589	508
Index				1976-78 = 100			
Crops	1979-80	116	102	121	122	85	113
Livestock products	1977-78	101	102	104	102	107	105
Total agriculture	1979-80	110	103	114	116	95	111

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Appendix Table 2--Production of selected agricultural products: Canada

Item	Record year before 1980	Volume in record year	1980	1981	1982	1983	1984
				Thousand tons			
Wheat	1966	22,516	19,292	24,803	26,735	26,588	21,199
Barley	1971	13,099	11,394	13,724	13,966	10,296	10,252
Corn	1979	4,983	5,753	6,673	6,513	5,933	7,024
Rye	1971	866	455	927	933	828	664
Oats	1966	5,778	2,912	3,188	3,637	2,773	2,669
Hay	1979	26,506	23,168	24,990	24,355	24,863	25,661
Fodder corn	1977	15,118	12,806	12,099	11,248	9,908	10,619
Rapeseed	1978	3,497	2,484	1,849	2,246	2,632	3,246
Flaxseed	1970	1,218	442	468	734	447	676
Soybeans	1979	657	690	607	857	722	934
Sunflowerseed	1978	120	166	165	94	52	82
Tobacco	1973	117	106	112	68	110	88
Apples	1963	470	553	422	478	485	455
Potatoes	1979	2,752	2,471	2,683	2,799	2,556	2,729
Dry peas	1978	80	76	110	135	115	131
Dry beans	1974	97	70	65	73	39	46
Beef and veal	1977	1,143	971	1,015	1,029	1,036	1,000
Pork	1979	737	856	840	833	852	860
Poultry meat	1979	532	522	527	527	537	565
Eggs	1970	338	336	337	336	343	335
Milk	1969	8,481	7,855	8,005	8,258	8,019	8,069
Butter	1964	163	111	125	134	104	108
Cheese	1979	167	177	177	170	183	193
Skim milk powder	1975	187	109	137	163	123	130
Index				1976-78 = 100			
Crops	1978	106	100	115	122	116	108
Livestock products	1979	103	108	109	111	110	110
Total agriculture	1978	104	104	112	117	113	109

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Appendix Table 3—Production of selected agricultural products: Australia

Item	Record year before 1980	Volume in record year	1980/81	1981/82	1982/83	1983/84	1984/85
				Thousand tons			
Wheat	1978-79	18,090	10,856	16,360	8,876	21,903	18,500
Barley	1978-79	4,006	2,682	3,450	1,939	4,937	5,475
Sorghum	1970-71	1,298	1,204	1,317	958	1,815	1,582
Oats	1966-67	1,943	1,128	1,617	848	2,269	1,403
Corn	1971-72	214	173	212	139	249	292
Rice	1978-79	692	728	854	548	634	823
Sunflowerseed	1978-79	186	139	115	104	156	250
Peanuts	1978-79	62	43	58	23	51	46
Soybeans	1978-79	99	73	77	53	84	113
Lupins	1975-76	104	96	136	199	369	613
Cotton	1979-80	83	99	134	101	141	205
Tobacco	1970-71	17	14	13	14	14	13
Hay	n.a.	n.a.	826	1,033 864	n.a.	n.a.	
Potatoes	1979-80	899	866	919	835	891	919
Other vegetables	1978-79	1,061	938	938	1,002	1,014	1,014
Citrus fruit	1979-80	488	537	477	503	494	566
Grapes	1979-80	919	743	963	815	900	840
Apples	1970-71	443	307	295	301	266	330
Other fruit	Years vary	n.a.	564	558	545	579	553
Sugar cane	1977-78	23,493	23,976	25,094	24,817	24,189	25,512
Beef and veal	1977-78	2,184	1,467	1,576	1,544	1,300	1,224
Lamb	1971-72	360	279	277	280	282	282
Mutton	1971-72	596	299	234	250	155	220
Pork	1972-73	236	233	228	239	250	252
Poultry meat	1978-79	267	303	286	312	292	318
Eggs	1971-72	142	140	134	137	136	130
Wool	1969-70	923	701	717	702	728	773
Milk	1969-70	7,731	5,324	5,410	5,673	6,087	6,060
Cheese	1979-80	154	135	153	158	161	161
Butter	1969-70	223	79	76	88	111	110
Skim milk powder	1974-75	158	54	76	90	114	127
Condensed milk	1964-65	102	79	74	67	69	70
Index				1976-78 = 100			
Crops	1978	121	97	122	90	145	132
Livestock products	1977	101	97	94	98	95	97
Total agriculture	1978	110	97	107	94	118	113

n.a. = not available.

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Appendix Table 4--Crop supply and use: United States, Canada, and Australia

Country and crop	Harvested area	Yield	Production	Total supply 1/	Domestic use total	Feed use 2/	Exports	Ending stocks
	Million hectares	Ton/ha			Million tons			
U.S.								
Wheat								
1981/82	32.6	2.32	75.8	102.7	23.0	3.6	48.2	31.5
1982/83	31.5	2.39	75.3	107.0	24.7	5.3	41.1	41.2
1983/84	24.8	2.66	65.9	107.2	30.2	10.2	38.9	38.1
1984/85	27.1	2.60	70.6	108.9	30.2	10.2	39.5	39.2
Corn								
1981/82	30.1	6.85	206.2	232.5	127.3	106.7	50.0	55.2
1982/83	29.4	7.12	209.2	264.4	137.7	114.9	47.4	79.3
1983/84	20.8	5.09	106.0	185.4	119.6	94.9	47.4	18.4
1984/85	28.8	6.64	194.5	212.9	133.4	106.7	49.5	30.0
Other coarse gr.								
1981/82	13.2	3.19	42.1	50.7	29.1	23.9	8.6	13.0
1982/83	13.9	2.95	41.0	54.3	29.7	24.5	6.6	18.0
1983/84	11.6	2.68	31.1	49.9	28.4	22.9	8.2	13.3
1984/85	13.5	3.16	42.6	56.7	31.1	25.5	8.8	16.8
Soybeans								
1981/82	26.8	2.02	54.1	62.6	30.4	2.0	25.3	6.9
1982/83	28.1	2.12	59.6	66.5	32.5	1.7	24.6	9.4
1983/84	25.3	1.76	44.5	53.9	29.0	1.8	20.0	4.8
1984/85	27.0	1.92	50.6	55.4	30.1	1.8	19.3	6.0
Cotton								
1981/82	5.58	.61	3.40	4.00	1.14	--	1.42	1.44
1982/83	3.94	.66	2.60	4.05	1.20	--	1.13	1.72
1983/84	2.97	.57	1.69	3.42	1.29	--	1.48	.60
1984/85	4.23	.68	2.89	3.50	1.15	--	1.41	.95
Canada								
Wheat								
1981/82	12.4	2.00	24.8	33.4	5.2	2.1	18.4	9.8
1982/83	12.5	2.13	26.7	36.5	5.1	1.8	21.4	10.0
1983/84	13.7	1.94	26.6	36.6	5.9	2.7	21.8	9.0
1984/85	13.2	1.61	21.2	30.2	5.3	2.1	16.7	8.2
Barley								
1981/82	5.5	2.51	13.7	16.9	6.7	5.9	6.0	4.2
1982/83	5.1	2.71	14.0	18.1	7.3	6.5	5.6	5.2
1983/84	4.4	2.37	10.3	15.5	8.0	7.2	5.5	2.0
1984/85	4.5	2.25	10.3	12.2	7.0	6.1	3.0	2.2
Other coarse gr.								
1981/82	3.7	3.32	12.3	15.4	11.3	9.7	1.8	2.3
1982/83	3.7	3.38	12.6	15.7	11.3	9.9	1.0	3.4
1983/84	3.4	3.15	10.7	14.4	10.9	9.3	1.3	2.1
1984/85	3.5	3.34	11.7	14.4	11.1	9.5	1.3	2.1
Rapeseed								
1981/82	1.4	1.32	1.8	3.2	1.1	.9	1.4	.7
1982/83	1.8	1.25	2.2	2.9	1.2	.9	1.3	.5
1983/84	2.3	1.13	2.6	3.1	1.5	1.2	1.5	.1
1984/85	3.0	1.21	3.2	3.4	1.6	1.2	1.4	.4

--Continued--

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Appendix Table 4--Crop supply and use: United States, Canada, and Australia--continued

Country and crop	Harvested area	Yield	Pro-duction	Total supply	Domestic use total	Feed	Exports	Ending stocks
	Million hectares	Ton/ha			Million tons			
Australia								
Wheat								
1981/82	11.9	1.38	16.4	18.4	2.5	1.0	11.0	4.9
1982/83	11.5	.77	8.9	13.8	4.1	2.4	7.3	2.4
1983/84	12.9	1.70	21.9	24.3	2.6	1.1	14.2	7.6
1984/85	12.2	1.52	18.5	26.1	3.1	1.5	15.1	7.9
Barley								
1981/82	2.7	1.28	3.4	3.5	1.3	1.0	2.2	—
1982/83	2.5	.73	1.9	2.0	1.2	.9	.6	.2
1983/84	3.2	1.57	4.9	5.1	1.3	.6	3.8	.1
1984/85	3.7		5.5	5.6	1.4	.9	4.0	.2
Other coarse gr.								
1981/82	2.1	1.48	3.2	3.6	2.1	1.8	1.3	.4
1982/83	2.0	.97	2.0	2.4	1.9	1.6	.4	.1
1983/84	2.6	1.68	4.4	4.5	1.9	1.6	1.7	.9
1984/85	2.1	1.56	3.3	4.2	2.0	1.7	1.4	.8
Oilseeds 3/								
1981/82	.37	1.16	.48	.58	.51	.45	.03	.05
1982/83	.36	1.30	.35	.44	.39	.35	—	.04
1983/84	.44	.96	.50	.57	.51	.45	.02	.04
1984/85	.73	1.14	.78	.84	.71	.64	.08	.05
Cotton								
1981/82	103	1.33	134	197	21	—	81	95
1982/83	96	1.10	101	203	21	—	134	48
1983/84	136	1.04	141	189	22	—	89	78
1984/85	194	1.06	205	284	22	—	115	147

1984/85 is forecast.
1/ Includes imports.
2/ Crush for oilseeds.
3/ Includes soybeans, sunflowerseed, rapeseed, cottonseed, and peanuts.
Source: USDA World Agricultural Supply and Demand Estimates and other reports.

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Appendix Table 5—U.S., Canada, Australia, and New Zealand livestock numbers

Item and year	Beginning inventories 1/	Births 2/	Total supply 3/	Slaughter	Exports	Death loss/ residual
			Thousand head			
United States						
Cattle & calves						
1982	115,604	44,420	161,029	39,264	58	4,554
1983	115,199	44,093	160,213	40,136	56	5,047
1984	114,040	43,400	158,440	41,289	55	5,790
1985	111,496	42,500	154,996	38,835	60	4,950
1986	111,101					
Hogs						
1982	58,698	85,189	147,714	86,977	—	6,203
1983	54,534	93,155	151,211	89,059	—	5,458
1984	56,694	86,476	146,970	87,427	—	5,500
1985	54,043	86,350	144,193	82,693	—	5,500
1986	56,000					
Canada						
Cattle & calves						
1982	12,088	4,450	16,606	4,418	504	272
1983	11,618	4,468	16,236	4,368	383	150
1984	11,360	4,350	15,745	4,180	420	150
1985	10,965	4,230	15,325	4,055	300	230
1986	10,740					
Hogs						
1982	10,035	14,000	24,035	13,449	302	210
1983	10,070	14,600	24,670	13,694	451	140
1984	10,741	14,950	25,691	13,830	1,322	100
1985	10,792	15,300	26,092	13,750	1,500	100
1986	10,742					
Australia						
Cattle & calves						
1982	24,553	8,746	33,299	9,428	—	1,375
1983	22,478	7,900	30,378	7,970	—	602
1984	21,846	8,000	29,846	6,550	—	446
1985	22,500	8,200	30,700	6,900	—	500
1986	23,100					
Sheep & lambs						
1982	137,976	45,352	183,328	30,758	6,297	13,350
1983	133,237	44,519	177,756	25,400	7,300	6,431
1984	139,200	47,300	185,925	24,500	7,500	10,675
1985	144,000	47,800	190,800	29,000	7,500	9,300
1986	145,000					
New Zealand						
Cattle & calves						
1981/82 4/	8,035	3,300	11,335	3,244	—	179
1982/83	7,912	3,251	11,163	3,119	—	414
1983/84	7,630	3,263	10,893	2,595	—	388
1984/85	7,910	3,369	11,279	2,786	—	343
1985/86	8,150	3,460	11,610	3,000	—	410
Sheep & lambs						
1981/82	69,884	48,134	118,018	41,136	—	6,581
1982/83	70,301	50,657	120,958	45,229	—	5,466
1983/84	70,263	49,900	120,163	43,267	—	6,522
1984/85	70,344	53,121	123,465	47,380	—	5,585
1985/86	70,500	52,000	121,700	46,200	—	5,500

1985 and 1986 are forecast.
1/ January 1 for the United States and Canada; March 31 for Australia; June 30 for New Zealand.
2/ In Australia, data are for calves branded and lambs marked. In New Zealand, data are for lambs tailed.
3/ Includes imports.
4/ October 1 - September 30 years.
Dash means none or negligible.
Source: USDA, World Agricultural Supply and Demand Estimates and other reports.

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Appendix Table 6--Meat supply and use: United States, Canada, Australia, and New Zealand

Item and year	Production	Imports	Total supply	Consumption Total	Consumption Per Capita 1/	Exports	Ending stocks
			1,000 tons				
United States							
Beef and veal							
1983	10,543	876	11,552	11,263	36.4	142	147
1984	10,683	816	11,647	11,325	36.4	174	147
1985	10,376	828	11,351	11,022	34.8	193	136
Pork							
1983	6,894	318	7,312	7,012	28.2	164	136
1984	6,710	420	7,266	6,989	27.8	141	136
1985	6,444	408	6,988	6,732	26.6	132	124
Poultry meat							
1983	7,144	--	7,297	6,880	29.6	292	125
1984	7,399	--	7,524	7,123	30.2	274	127
1985	7,878	--	8,005	7,608	32.0	248	150
Canada							
Beef and veal							
1983	1,036	91	1,141	1,039	41.8	83	19
1984	1,000	118	1,137	1,020	40.8	98	19
1985	970	100	1,089	974	38.7	100	15
Pork							
1983	852	20	881	713	28.8	158	10
1984	860	14	884	702	28.1	170	12
1985	852	12	876	699	27.7	165	12
Poultry meat							
1983	537	38	604	580	23.4	2	22
1984	565	41	627	605	24.2	2	20
1985	589	41	650	628	24.9	2	20
Australia							
Beef and veal							
1983	1,391	--	1,439	630	41.0	767	42
1984	1,230	--	1,317	628	40.9	647	42
1985	1,270	--	1,352	632	40.4	678	42
Lamb							
1983	275	--	280	243	15.8	34	3
1984	270	--	273	238	15.2	32	3
1985	285	--	288	250	15.6	32	6
Mutton							
1983	180	--	205	58	3.7	144	3
1984	177	--	180	71	4.6	91	18
1985	235	--	253	86	5.3	134	33
New Zealand 2/							
Beef and veal							
1982/83	536	--	569	172	53.3	372	25
1983/84	461	--	486	166	50.8	288	32
1984/85	485	--	517	170	51.5	315	32
Lamb							
1982/83	477	--	567	33	10.2	446	88
1983/84	467	--	555	43 3/	10.1	432	80
1984/85	495	--	575	35	10.6	455	85
Mutton							
1982/83	174	--	249	74	22.9	120	55
1983/84	169	--	224	100 3/	22.9	66	58
1984/85	185	--	243	85 3/	22.7	120	38

1984 data are preliminary. 1985 data are forecast. Dash means none or negligible. 1/ Kilograms. 2/ October 1 - September 30 years. 3/ Includes meat rendered down. Source: USDA, World Agricultural Supply and Demand Estimates and other reports.

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Appendix Table 7--Prices for grains and meat

Year	United States corn			Canadian barley 1/		Aust. barley	$US per local curr.	
	Target	Loan	Av. farm	Initial	Final	Gr. returns 2/		
	$U.S./ton			Can.$/ton		$A/ton	Can.$	$A
Coarse grain prices								
1980/81	92.50	88.60	122.40	124.01	146.55	142	.84	1.16
1981/82	94.50	94.50	98.40	124.00	132.84	134	.82	1.10
1982/83	106.30	100.40	105.50	110.00	110.00	150	.81	.94
1983/84E	112.60	104.30	127.95	110.00	139.02	159	.79	.91
1984/85F	119.30	100.40	104.30	105.00	NA	142	.75	.80

	United States			Canada 3/		Australia	
	Target	Loan	Av. farm	Initial	Final	GMP 4/	Net returns
	$U.S./ton			Can.$/ton		$A/ton	
Wheat prices							
1980/81	133.40	110.20	143.70	156.16	222.12	131.92	122.17
1981/82	140.00	117.60	134.10	174.50	199.62	141.55	119.72
1982/83	148.80	130.40	130.40	174.50	192.34	141.32	140.03
1983/84E	158.00	134.10	130.10	170.00	193.98	150.00	119.91
1984/85F	160.90	121.25	124.90	160.00	NA	145.35	120.00

	United States			Canada			Australia	
	Wheat 5/	Corn 6/	Soybeans 7/	Wheat 8/	Barley 9/	Rapeseed 10/	Wheat 11/	Barley 12/
	$U.S./ton			Can.$/ton			$A/ton	
Grain export prices								
1982/83								
July-Sept.	154	107	227	204	97	298	158	136
Oct.-Dec.	155	102	214	202	97	309	171	155
Jan.-Mar.	166	117	227	206	103	306	177	166
Apr.-June	161	135	238	208	104	312	190	175
1983/84								
July-Sept.	153	149	296	210	113	366	179	167
Oct.-Dec.	153	147	314	209	132	400	168	164
Jan.-Mar.	153	144	292	220	129	415	162	155
Apr.-June	154	149	308	218	136	567	170	150
1984/85								
July-Sept.	154	139	250	209	127	437	182	152
Oct.-Dec.	153	120	235	209	137	392	184	NA
Jan.-Feb.	149	121	230	220	134	388	151E	NA

Continued--

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Appendix Table 7--Prices for grains and meat--continued

	United States		Canada		Australia		New Zealand	
	Beef 13/	Pork 14/	Beef 15/	Pork 16/	Beef 17/	Lamb 18/	Beef 19/	Lamb 20/
	$U.S./cwt.		Can.$/cwt.		$A/cwt.		$NZ/cwt.	
Meat prices								
1983								
Jan.-Mar.	61.52	55.00	77.95	82.57	56.62	45.45	57.90	67.40
Apr.-June	66.44	46.74	83.48	71.14	74.57	63.70	64.65	67.40
July-Sept.	60.89	46.90	76.09	68.54	73.42	43.95	59.90	67.40
Oct.-Dec.	60.61	42.18	77.66	61.85	67.89	43.70	57.15	67.40
1984								
Jan.-Mar.	67.58	47.68	84.29	66.81	71.83	54.05	61.70	67.40
Apr.-June	66.01	48.91	85.88	73.09	73.24	50.38	65.50	67.40
July-Sept.	64.28	51.21	85.32	79.88	79.35	55.96	88.15	67.40
Oct.-Dec.	63.49	47.65	85.76	71.30	77.00	43.60E	82.85	64.65
1985								
Jan.-Feb.	63.63	49.89	87.84	72.94	NA	NA	98.00	64.65

1/ No. 1 feed barley. 2/ Payments to growers are subject to deductions for freight and handling charges and the barley research levy. 3/ No. 1 Canadian Western Red Spring (CWRS). 4/ Australian Standard White (ASW); subject to deductions for freight and handling charges and Australian Wheat Board expenses. 5/ No. 2 Hard winter, ordinary protein, f.o.b. Gulf ports. 6/ No. 3 Yellow, f.o.b. vessel, Gulf ports. 7/ No. 2 yellow, f.o.b. vessel, Gulf ports. 8/ No. 1 CWRS, 13.5 percent protein, Thunder Bay. 9/ Winnipeg Commodity Exchange cash price, Thunder Bay. 10/ No. 1, Vancouver. 11/ ASW, Wheat Board quote. 12/ Australian Barley Board 2-row No. 3 feed barley, S.A. and Victoria terminal ports. 13/ Omaha choice steers. 14/ Barrows & gilts, 7 markets. 15/ A1, A2 steers, Toronto, dressed weight. 16/ Index 100, Ontario, dressed weight. 17/ Weighted-average saleyard price, dressed weight. 18/ Saleyard price, lambs 16 kg. and under, dressed weight. 19/ Manufacturing cow beef schedule price to farmers on the North Island (excluding the Auckland area), net of trigger price deductions. 20/ PM grade export schedule price to farmers on the North Island (excluding the Auckland area). E = estimated. F = forecast. NA = not available.

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Appendix Table 8--World wheat trade, July-June 1983/84

Importers	Exporters					
	United States 1/	Canada	Australia 2/	Argentina	Other/resid.	Total
	1,000 tons					
European Comm.	1,021	2,010	—	100	469	3,600
Other W. Eur.	885	187	—	100	669	1,841
Eastern Europe	331	193	—	250	3,083	3,857
USSR	4,342	5,776	1,555	3,600	5,227	20,500
China	3,072	3,823	1,487	1,010	208	9,600
Indonesia	1,108	—	412	—	180	1,700
Japan	3,400	1,403	1,070	—	-16	5,857
Rep. Korea	1,907	7	212	50	175	2,351
Other E./S.E. Asia & Oc.	1,666	132	828	—	1,271	3,897
India	1,290	513	—	700	-3	2,500
Bangladesh	585	394	428	30	438	1,875
Other S. Asia	590	182	76	25	482	1,355
Iran	—	506	988	1,100	1,106	3,700
Iraq	1,167	632	832	—	669	3,000
Other Mideast	1,918	246	822	120	315	3,421
Algeria	431	820	—	—	1,589	2,840
Egypt	2,749	585	1,708	100	1,218	6,360
Morocco	1,868	—	—	—	262	2,130
Other N. Afr.	486	112	—	120	2,827	3,545
Nigeria	1,544	—	—	—	6	1,550
Other Africa	766	320	143	50	1,733	3,012
Brazil	2,141	1,435	—	750	-378	3,948
Cuba	—	1,053	—	250	-3	1,300
Other Lat. Am.	4,954	411	23	1,295	-385	6,298
United States	—	40	—	—	72	112
Total	38,861	20,780	10,582	9,650	21,789	103,659

Dash means less than 500 tons.
1/ U.S. Census data unadjusted for transshipments. Includes products.
2/ Australian Bureau of Statistics data.

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Appendix Table 9--World coarse grain trade, October-September 1983/84

Importers	Exporters					
	United States 1/	Canada	Australia	Argentina	Other/resid.	Total
	1,000 tons					
European Comm.	4,301	480	161	800	-130	5,465
Other W. Eur.	4,926	217	14	700	1,895	7,752
Eastern Europe	905	1,199	201	100	1,313	3,718
USSR	6,283	274	99	4,200	1,078	11,934
Canada	286	—	—	—	—	286
China	18	26	75	2	94	215
Japan	15,797	1,022	1,481	1,900	548	20,748
Rep. Korea	3,088	236	138	100	368	3,930
Taiwan	2,939	36	432	100	488	3,995
Other E./S.E. Asia & Oc.	287	347	1,100	175	1,333	3,242
South Asia	—	—	—	—	3	3
Iran	—	222	196	700	7	1,125
Israel	831	214	—	—	40	1,085
Saudi Arabia	118	32	1,015	10	3,757	4,932
Other Mideast	1,367	559	348	25	840	3,139
Egypt	1,303	—	—	100	97	1,500
Other N. Afr.	730	—	1	75	989	1,794
Rep. S.Africa	2,699	—	25	150	61	2,935
Other Africa	654	5	—	75	972	1,706
Mexico	5,572	57	—	500	-282	5,847
Venezuela	1,354	—	—	100	166	1,620
Other Lat. Am.	1,465	291	198	515	96	2,565
United States	—	153	9	10	404	576
Total	55,747	5,370	5,493	10,918	13,954	91,588

Dash means less than 500 tons.
1/ U.S. Census data unadjusted for transshipments. Includes products.

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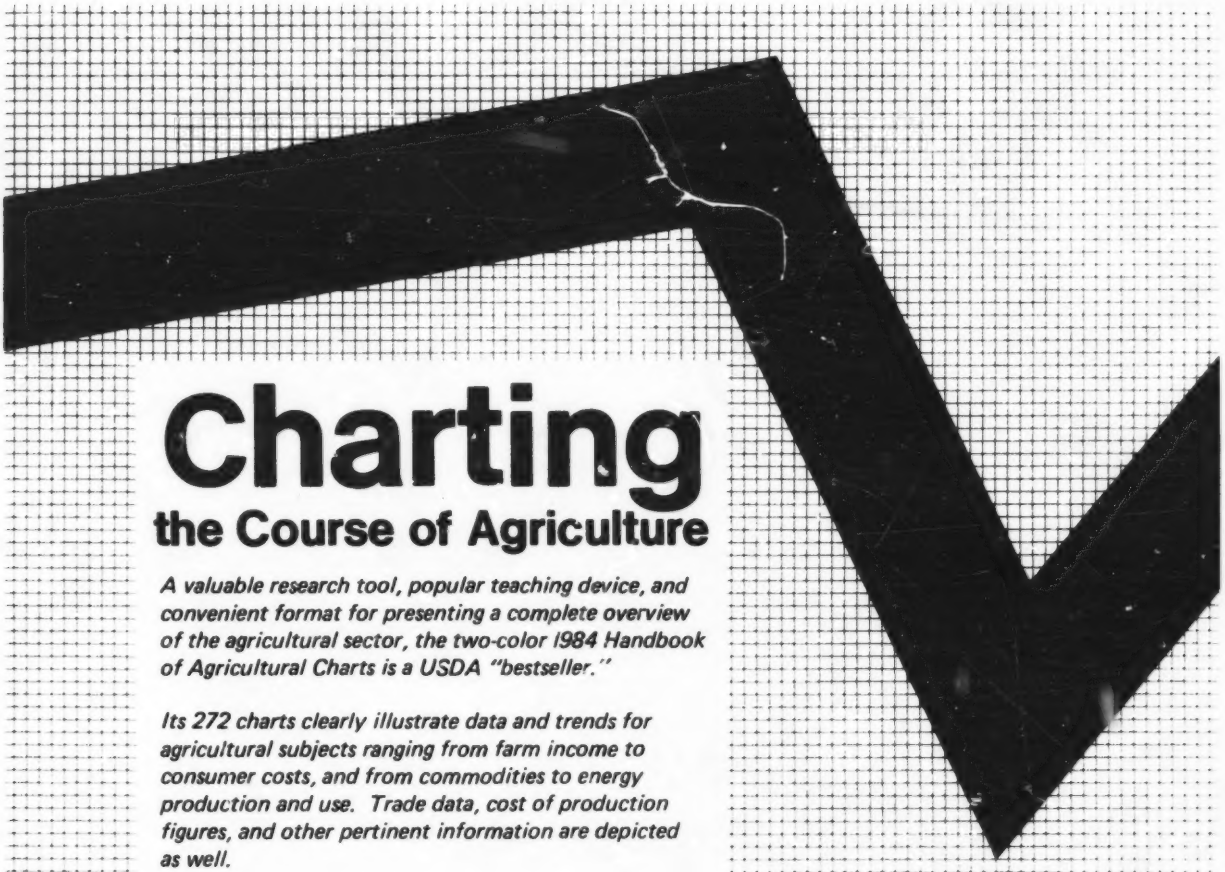

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